

The American Economic Review

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The American Economic Review

VOL. VI

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No. 4

CONSTRUCTION OF A BUSINESS BAROMETER BASED UPON ANNUAL DATA

(This paper was presented in part at the meeting of the American Statistical Association, held in San Francisco, August 11, 1915.)

I. Statement of the Problem

A barometer showing the fluctuations of business and industrial activity may be put to many uses. Economists and sociologists need such a barometer when dealing with the phenomena of a dynamic society; government officials when handling the problem of unemployment or when considering the advisability of inaugurating large government undertakings; manufacturers and dealers when considering the desirability of making extensions to their plants or of contracting or expanding their purchases, sales or commitments; bankers need a business barometer to guide them in extending or calling their loans and discounts; and investors need one to direct their purchases and sales of securities.

Various statistical series, such as bank clearings, commodity prices, coal and iron production, have been used by various writers as indices of general business condition. Other series, such as prices of stocks, commercial failures, and surplus bank reserves, have been recommended for forecasting such condition. Professor Irving Fisher bases his forecasts upon changes which take place in the series entering into his equation of exchange, especially upon changes in the velocities of circulation of deposit currency and money; maxima being reached, he holds with justice, in the year of the occurrence of a crisis.¹ However, these velocities must be estimated from inadequate data and hence are subject to a large possible error.²

A governmental commission has considered the problem of the construction of a business barometer. After the crisis of 1907

¹ Irving Fisher, *Purchasing Power of Money*, p. 270.

² Irving Fisher, "The Equation of Exchange for 1914 and the War," *AMERICAN ECONOMIC REVIEW*, vol. V (June, 1915), p. 407.

the French government appointed a commission "*chargée d'étudier les mesures à prendre pour atténuer les chômages résultant des crises économiques périodiques.*" This commission was composed of 44 government officials, senators, deputies, bankers, statisticians, and economists. The commission recommended that, in order to reduce unemployment in time of industrial depression, the planned governmental undertakings be prosecuted more vigorously at such times than in time of industrial activity, making specific recommendations as to the handling of government budgets, appropriations, and reserve funds so that the responsible officials would be given sufficient latitude to accomplish the purpose.³ The commission realized that its most important, and most difficult, task was to find some index of industrial condition that could be used as a reliable guide in regulating governmental activity. It sought the answer to this question: "*dans la multiplicité des phénomènes qui s'enchaînent et se conditionnent les uns les autres, existe-t-il des signes révélateurs de la dépression prochaine?*"⁴ Investigation led the commission to recommend, as most significant, the following statistical indices of business condition:⁵

1. Commercial loans and discounts of the Bank of France;
2. Cash reserves of the Bank of France;
3. Prices of raw materials, of foodstuffs, and of all commodities;
4. Foreign commerce of France;
5. Consumption of coal;
6. Price of pig-iron;
7. Traffic of railroads;
8. Unemployment.

The dates of maxima and minima of the various indices were compared with each other and with the dates of crises. "Certain of these indices," says the report, "appear to precede crises and, in some measure, to forecast them. Others are concurrent."⁶ A composite business barometer was not constructed.

Within the last half-dozen years two organizations in the United States—Babson's and Brookmire's—have developed a service for business men, bankers, and investors in which fundamental statistics are used in constructing a business barometer and for fore-

³ See pp. 6 and 65 of *Rapports sur les Indices des Crises économiques et sur Mesures financières propre à atténuer les Chômages résultant de ces Crises*, a government report of 78 pages presented in 1911.

⁴ *Ibid.*, p. 13.

⁵ *Ibid.*, p. 39.

⁶ *Ibid.*, p. 38.

casting business conditions. Both services use a business barometer obtained by averaging a number of statistical series. Both Babson and Brookmire claim that variations in certain series precede variations in the business barometer and hence are especially valuable for forecasting. For instance, Brookmire says, "A rise in the stock market for three or four months always precedes and forecasts business improvement."⁷ On the other hand, Babson states that, "In some instances the investment market has been ahead of general business, but more often it has only reflected conditions already revealed by other statistics."⁸ Babson maintains that, "The production of pig-iron forecasts the condition of the whole building industry and construction of all kinds"⁹ and that "the turning point of the statistics on new building has been from two years to six months earlier than the general crisis."¹⁰

Figure 1 presents the business barometers of Brookmire and Babson. Brookmire bases his forecasts upon three graphs, as follows:

1. A graph to show the price trend of thirty-two leading stocks (not shown in Figure 1).
2. A business graph based upon the statistics of bank clearings, railroad earnings, pig-iron production and prices, commodity prices, imports, building, and immigration (the shaded graph of Figure 1).
3. A banking graph based upon reserves, deposits, the rate of commercial paper, the percentage of loans to deposits and the percentage of reserves to loans (not shown in Figure 1).

The secular tendency of each series is computed and eliminated, Brookmire tells us, the method not being uniform for all the data, before the series are combined. The horizontal line *OP* (Figure 1) thus represents "normal." General liquidation, Brookmire states, "is always forecasted by the fall in the banking and stock market graphs, the stock market especially being an invaluable barometer to the business man in warning him of a period of declining prices and business reaction."¹¹

Babson's business barometer is obtained by combining the following statistics:

⁷ AMERICAN ECONOMIC REVIEW, vol. III (March, 1913), pp. 57-58.

⁸ Babson's *Reports*, 1914, chart no. 609.

⁹ *Ibid.*, chart no. 612.

¹⁰ *Ibid.*, chart no. 598.

¹¹ AMERICAN ECONOMIC REVIEW, vol. III (March, 1913), p. 58.

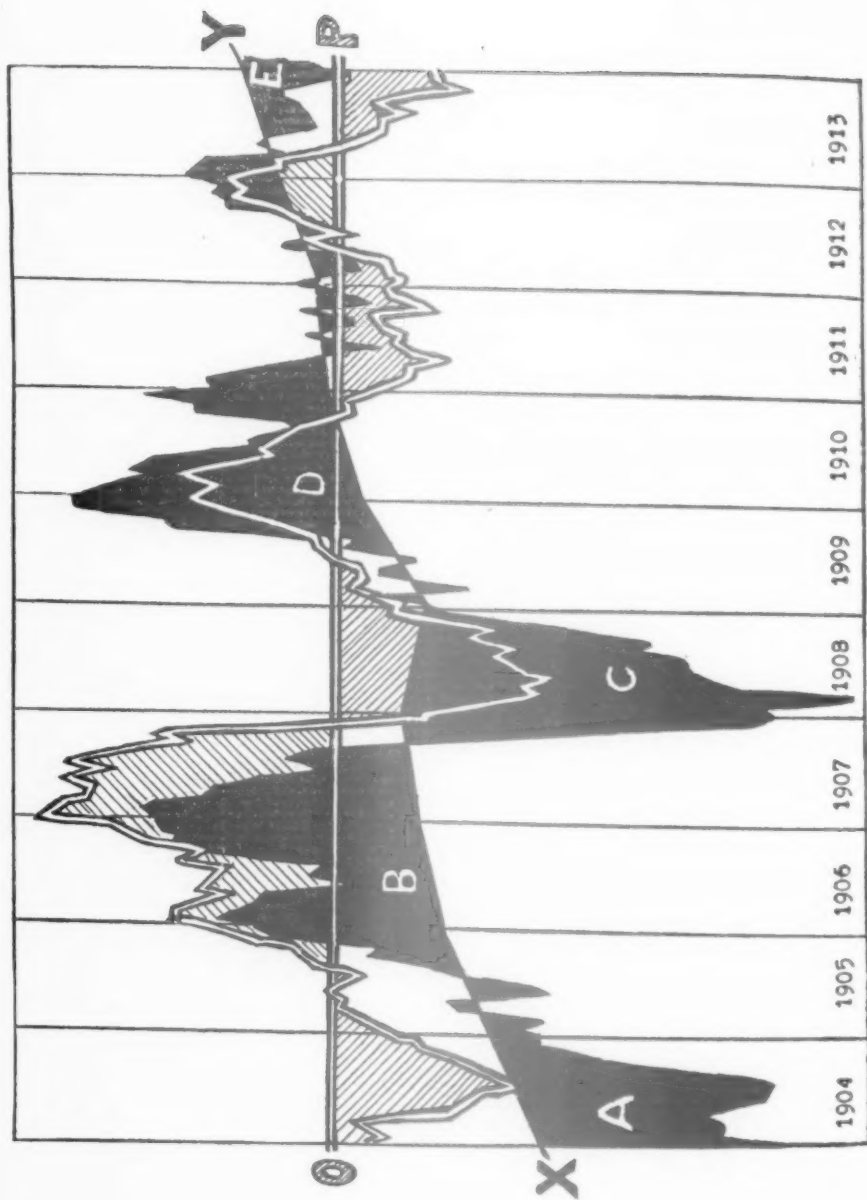


FIGURE 1. - Babson's (black) and Brookmire's (shaded) composite barometers for 1904-1913. The lines XY and OP represent the respective secular trends.

1. A group indicating mercantile conditions based on statistics of immigration, new building, commercial failures, and bank clearings.
2. A group indicating monetary conditions, based on commodity prices, foreign trade, foreign money rates, and domestic money rates.
3. A group indicating investment conditions based on conditions of leading crops, railroad earnings, political factors (estimated), and prices of stocks.

All the series are combined in the composite business barometer of Figure 1 (black). Babson does not eliminate the secular trend before combining the various series, but he computes it each year for the series entering the composite plot. It is shown in the accompanying chart by the broken line *XY*. Babson bases his predictions on "the assumption that Newton's fundamental law of Action and Reaction applies to business as well as to mechanics, chemistry, and every known art and science."¹² Areas above and below the line of secular trend (*XY*), he holds, must be equal. His line of trend or normal growth, which changes slope every year, is drawn on the basis of this assumption.

In a letter to me dated October 7, 1915, Mr. Babson explained his assumptions and method as follows:

When the two factors of time and intensity are multiplied to form an area, the sums of the areas above and below said line of normal growth X-Y must, over sufficiently long periods of time, be equal, provided the line X-Y is properly located and enough subjects are there-with included, with all properly weighed and combined. The method by which this line is formed is the following: A starting point is obtained by arbitrarily drawing a line with the proper trend thru the curve of a completed cycle, to make the areas above and below the said line equal for that first completed cycle. This gives a starting point. This line is then carried along from year to year in accordance with the trend of bank clearings until the second cycle has been completed. At the end of this second cycle the size of the areas is then noted. Up to the present they have been nearly enough equal for all practical purposes, but if not, the right is reserved to make a slight adjustment at the end of each cycle—in order that any errors shall not be cumulative. Of course if this correction is considerable, the case falls down, but if only a slight correction is needed, it seems allowable. In other words, instead of drawing the Plots to prove the law of action and reaction, the law of action and reaction is assumed (1) to make the Plot as useful as possible for immediate use, and (2) for correcting possible errors due to lack of completeness of data.

¹² Babson's *Reports*, 1914, preface.

In a preceding paragraph I mentioned the irregularity of slope of the "line of normal growth" that Babson secures by his method of equal positive and negative areas. My concept of normal growth, differing from that of Mr. Babson, is that of an element which can be represented by a smooth line or curve which sweeps along from year to year undisturbed, except in its *general* position and slope, by the actual items of the statistical series. The normal line, of course, should "fit" the original data and be determined by them. Marshall says that "when 'normal' prices are contrasted with temporary or market prices, the term refers to the dominance in the long run of certain tendencies under given conditions,"¹³ and that "there are very gradual or *Secular* movements of normal price, caused by the gradual growth of knowledge, of population and of capital, and the changing conditions of demand and supply from one generation to another."¹⁴ Marshall thus emphasizes the *gradualness* of the secular changes. In its estimates of intercensal population the federal Bureau of the Census assumes that there is a uniform addition to the population from year to year: *i. e.*, that the line of growth between censal years is straight. Experience has shown that the straight line fits the data excellently. For a period of fifty or one hundred years, rather than ten, the compound interest law with a uniform *rate* of change gives a better fit. In either case, however, the secular trend is represented by a smooth curve.

The method of eliminating the secular trend used by the Brookmire Economic Service is as follows: first, find the arithmetic average increase in the items for the ten years preceding the date of the item to be adjusted; second, subtract the growth increment thus found from the eleventh item for which adjustment is desired. However, the method is abandoned in certain cases, the Service refusing "to be committed to any one method or any limited number of factors."¹⁵

¹³ Alfred Marshall, *Principles of Economics* (6th ed.), p. 36.

¹⁴ *Ibid.*, p. 379.

¹⁵ In a letter dated September 24, 1915, Mr. Warren F. Hickernell, editor of the Brookmire Economic Service, replied to my inquiry concerning his method of eliminating the secular trend as follows:

"In constructing our Barometer Chart we eliminate both the seasonal variation and the normal growth where these exist. The seasonal variation is eliminated by taking a ten-year average and dividing the actual figure by the deviation of the monthly average from the yearly average.

"In taking out the normal growth we also use a ten-year period as a base.

The Brookmire method has the defect of starting from an arbitrary assumption. Why should ten years, rather than five or twenty, be used in computing the secular trend? If the length of the business wave does not, in fact, coincide with the arbitrary period chosen at the outset or if it be irregular, the results are vitiated. Moreover, it must be remembered that we are eliminating the growth element in order to obtain information concerning the business cycle. The assumption of a cycle of definite length anticipates the conclusion. This point has been adequately discussed by A. L. Bowley.¹⁶ There is a further defect in this method: it can not be applied to the first ten items of the series.

Professor M. T. Copeland suggests the following method of eliminating normal growth and seasonal fluctuations from monthly data: "For each subject let a monthly index number be obtained by dividing the actual figure for the month by the average for that month during the ten preceding years. . . . By using the ten-year monthly averages, seasonal fluctuations are automatically allowed for, and by always taking the ten preceding years as the base, provision is made for normal growth."¹⁷ Copeland's method involves the same assumption as that of Brookmire: *i. e.*, recurrent business cycles of a ten-year period. This assumption should not

We stick to no one method, as the test of a good index is that its value shall not be impaired whether we use a movable or a fixed base. In case of pig-iron production or bank clearings, we can find the normal growth for a ten-year period and deduct the growth increment from the eleventh year in order to get the barometer figure. When using this movable base it is necessary to chop off the earliest year of the ten-year period and add on the eleventh year in order to form a new base for determining the rate of increase to be used in correcting the twelfth year. This continuation of a progressive ten-year base is used for the thirteenth year, etc. In the case of some business barometers, such as building permits, the movable base cannot be used from the beginning. It is impossible to get satisfactory statistics of building permits previous to 1900, and so it is necessary during the first ten years of our data to eliminate the normal growth of each year by using the average rate of increase for the period. In the eleventh year we can begin the use of a movable base.

"In constructing the charts I refuse to be committed to any one method or any limited number of factors. I also reserve the right to eliminate any factor when for legislative or other causes that factor ceases to be a good barometer. I always make a Barometer Chart of each factor separately before including it in a composite index."

¹⁶ *Elements of Statistics* (3d ed.), pp. 151-154.

¹⁷ "Statistical Indices of Business Conditions," *Quarterly Journal of Economics*, May, 1915, pp. 554, 556.

be made if our object is to ascertain the phenomena of the business cycle. The Brookmire and Copeland methods give substantially identical results.¹⁸

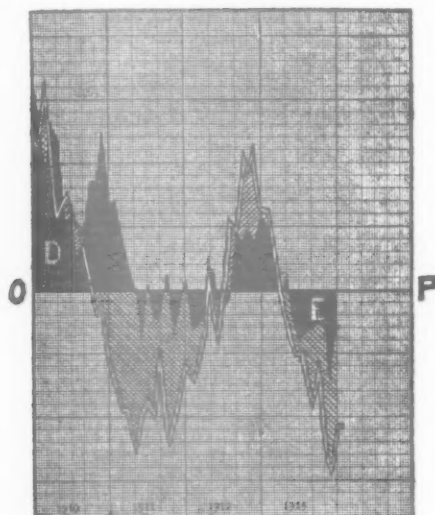


FIGURE 2. - Detail of Babson's (black) and Brookmire's (shaded) composite business barometers, 1910-1913.
Regular trend is CP in both cases.

A lack of correspondence of the Babson and Brookmire graphs is especially noticeable in the years 1910 and 1911. In Figure 2 the adjusted graphs are plotted together for the period 1910-1913, Babson's line of "real prosperity" (*XY*) being made to coincide with Brookmire's "normal" line (*OP*). In the latter part of 1910 and beginning of 1911 the Babson graph develops a decided positive area while the Brookmire graph shows a marked negative or subnormal area.

The criticisms that I have to offer of both Babson's and Brookmire's barometers are: first, that they are constructed of heterogeneous sets of statistics whose selection or grouping is based on no scientific analysis; second, the method of eliminating the secular trend is not satisfactory; and, third, it would appear impossible for any one desiring so to do, to check up Babson's or Brookmire's results. Babson's "law of action and reaction" is,

¹⁸ This is the conclusion of W. F. Hickernell in "Building Business Barometers: Dr. Copeland's Method," *Moody's Magazine*, December, 1915, pp. 574-578.

of course, only an hypothesis supported by arguments based on analogy rather than upon statistical investigation. If that law does apply to economic phenomena, the exact way in which it does apply would have to be ascertained by careful statistical research. Such research has not been made. I object, then, not to the use of a variety of industrial and financial statistical series in constructing a business barometer but rather to their use in a naïve or rule-of-thumb manner. However, let me say that both the Babson and Brookmire organizations have performed a most valuable service in emphasizing the importance of fundamental statistics and in making them readily available.

The problem which I wish to discuss in this paper is twofold. First, what statistical series should logically be combined to secure a barometer of general business conditions for the United States? Second, what series have variations precedent to the variations in the business barometer thus obtained and, therefore, offer a reliable basis for forecasting business conditions?

II. The Data and Method of Attack

The period 1879-1913 was selected for investigation because of its relative homogeneity of monetary and business conditions, and because it is long enough to include several sub-periods of industrial prosperity and depression. From 1879 to 1896 we have, in general, a series of years of falling prices, and from 1897 to 1913 a series of years of rising prices, but during the whole period the United States was on a gold basis. A short summary of the business conditions of the period selected for study follows.¹⁹

The business depression which followed the crisis of 1873 lasted until the summer of 1879. Good crops then brought a tide of prosperity which culminated in 1882. Business declined in 1883 and an acute crisis came in May, 1884. This crisis, however, was neither as general nor as disastrous in its effects as that of 1873.

Recovery from the crisis of 1884 was prompt. Although 1885 was the duller year of the decade, 1886 was a good business year and the high tide of prosperity was reached in 1889. In the summer and autumn of 1890 there was a monetary stringency in the United States, accompanying the financial prostration of England which reached its climax with the Baring failure of November 15.

¹⁹ This summary of conditions is adapted from Mitchell's *Business Cycles*, pp. 45-88.

However, general business was active. The liquidation that set in after the stringency of 1890 was checked by the "concurrence of bad harvests in Europe and abundant harvests in America. . . . In the United States the volume of business transactions in 1892 was greater than ever before." Liquidation was, evidently, merely postponed, for in May, 1893, "one of the most violent panics in the country's history broke out."

Deep depression ruled in 1894; in 1895 there was a revival followed by a relapse and return to depression and panicky conditions in financial markets in 1896. In the second half of 1897 improvement set in and continued to its high tide in 1899. After a pause in activity in 1900 prosperity in general business continued until 1904. A stock exchange panic occurred in May, 1901, and a "rich man's panic" of "undigested securities" occurred in 1903.

The mild industrial depression of 1904 gave place to prosperity in 1905 which reached its extreme in 1906. The crisis and panic of October, 1907, was followed by a deep depression of trade and industry in 1908. The recuperation in 1909 and 1910 was followed by a mild depression in 1911. Renewed activity of business occurred in 1912 but a halt came in the early part of 1913. The second half of 1913 and first half of 1914 made up a year of hesitation in business.

The following series of annual statistics for the United States were examined for the period just described, 1879-1913:²⁰

²⁰ The series of wholesale prices of commodities was secured by combining the indices of prices of "all articles" of the Aldrich Report and the indices of prices of "all commodities" of the Bureau of Labor Statistics. The former series was adjusted to the base of the latter by multiplying the former by the ratio 112.9 : 92.3, the antecedent being the Labor Bureau index for 1890 and the consequent being the Aldrich index for the same year.

Gross receipts, net earnings and new mileage of railroads are Poor's figures taken from *Statistics for the United States, 1867-1909* (National Monetary Commission Report) and Babson's *Reports*; exports, imports and balance of trade are from the same sources.

Coal, steel, and pig-iron produced, and immigration are from the *Statistical Abstract for the United States*. Liabilities of business failures are Dun's figures taken from the same source.

Ratio of loans to resources and ratio of cash to deposits of banks are from Babson's *Business Barometers*.

Price of pig-iron, surplus reserves of New York associated banks and percentage of business failures are from Babson's *Reports*. The business failures from 1902 to 1913 are the average of Dun and Bradstreet's; previous to 1902 they are Dun's only. The striking of such an average is, in general, bad

1. Wholesale prices of commodities;
2. Gross receipts of railroads;
3. Net earnings of railroads;
4. Coal produced;
5. Exports from the United States;
6. Imports into the United States;
7. Pig-iron produced;
8. Price of pig-iron;
9. Immigration (fiscal year);
10. Shares sold on the New York Stock Exchange;
11. Average price of shares sold on the New York Stock Exchange;
12. New York clearings plus five times outside clearings (called clearing index);
13. Clearing index divided by relative wholesale prices (called corrected clearing index);
14. New railroad mileage;
15. Per cent of business failures;
16. Liabilities of business failures;
17. Balance of trade;

statistical practice. However, in this case we are measuring correlation, and the relative fluctuations rather than the absolute figures are significant. In 1901 Bradstreet's percentage was .88 and Dun's .90; from that date the fluctuations are similar.

Shares sold on the New York Stock Exchange and average price of shares sold are the figures reported by *The Commercial and Financial Chronicle*, being taken from that journal and from *Statistics for the United States*.

The clearing index and the corrected clearing index are compiled from figures taken from *Statistics for the United States* and Babson's *Business Barometers*. The clearing index is obtained by combining the New York clearings and five times outside clearings, then reducing the series to relative numbers with 1890-1899 as the base. The weighting is in accordance with Fisher's conclusion that "on the basis of 1909 figures, five times the outside clearings plus once the New York clearings should be a good barometer of check transactions" (*Purchasing Power of Money*, p. 447). The corrected clearing index was obtained by dividing the clearing indices by the indices of relative wholesale prices for the corresponding years.

The weighted index numbers of the yield per acre of nine leading crops are Moore's figures (*Economic Cycles*, p. 130) supplemented by the indices for 1912 and 1913 computed by the writer. The nine crops and their respective weights are: corn, 36; wheat, 12; oats, 9; barley, 3; rye, 7; buckwheat, 3; potatoes, 6; hay, 16; cotton, 17. The period 1890-1899 was taken as the base. "The method of weighting that was adopted in this particular case was to assign to each crop an importance proportionate to its value as compared with the total value of the nine crops in 1911" (*Economic Cycles*, p. 104).

The average rates of interest on ten railroad bonds, long and short commercial paper and call loans are from Mitchell's *Business Cycles*, p. 146.

18. Weighted index numbers of the yield per acre of nine leading crops (Moore's figures);
19. Ratio of loans to resources of banks;
20. Ratio of cash to deposits of banks;
21. Surplus reserves of New York associated banks;

For the period 1890-1911 (Mitchell's figures):

22. Average rate of interest on ten railroad bonds;
23. " " " " " 4-6 month commercial paper;
24. " " " " " 60-90 day " "
25. " " " " " call loans in New York.

The method of attack selected for the problem under discussion involves:

1. The selection of a first approximation to a business barometer to be used as a standard with which to compare the other series. Wholesale prices of commodities was the standard chosen.
2. The elimination of the growth element or secular trend from each series and the securing of the periodic variations or "cycles."
3. Computation of the degree of correlation between the cycles of each series and the cycles of wholesale prices, for concurrent items, also for various degrees of lag in prices and in the given series; the object being the determination of the point of maximum correlation. The questions to be answered are: Do the fluctuations synchronize? If not, in which direction is the lag and how long?
4. Computation of the degree of correlation between the first differences of cycles (*i. e.*, changes, plus or minus, of each year as compared with the preceding year) of each series and of prices for concurrent items and for various degrees of lag; the object being the securing of further evidence concerning the point of maximum correlation as found in number 3 above.
5. Combination of the various series having concurrent fluctuations with wholesale prices into a business barometer.
6. Computation of the degree of correlation between the cycles of each series and of the business barometer as obtained in number 5 above to verify the selection of the series composing the barometer.
7. Computation of the degree of correlation between the first difference of each series and of the business barometer as a further confirmation of the selection of the series composing it.
8. Combination of the various series having the maximum correlation for a lag of one year in relative wholesale prices into a one-year forecaster.
9. Computation of the degree of correlation between the cycles and first differences, respectively, of the one-year forecaster and of the business barometer in order to determine the accuracy with which the former forecasts the latter.

III. Wholesale Prices as a First Approximation

The series of wholesale prices of commodities was taken as a first approximation to the business barometer because of the con-

sensus of opinion of writers on business cycles that such cycles are preëminently characterized by price movements, culminating in crises and reaching bottom at times of depression. For instance, Juglar's studies²¹ lead him to define an economic crisis as a "stoppage of the rise of prices"; Mitchell's account²² of business cycles hinges on price movements; Aftalion²³ explains the rhythm of production by the rhythm of prices. Veblen states that "crises, depressions, hard times, dull times, brisk times, periods of speculative advance, eras of prosperity, are primarily phenomena of business; they are, in their origin and primary incidence, phenomena of price disturbance, either of decline or advance."²⁴ Brookmire says: "A comparison of a 'barometer chart' of commodity prices with similar charts of all other business factors leads me to believe that in a well-constructed index of the general level of prices we have one of the best single barometers obtainable."²⁵

The reliability of seven index numbers of prices as business barometers has been tested by W. C. Mitchell for the period 1890-

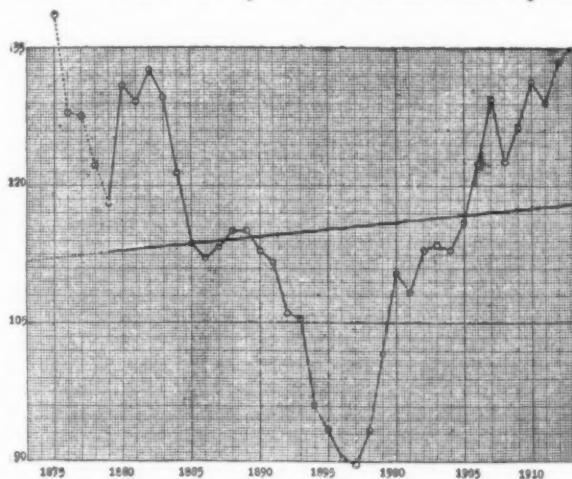


FIGURE 3. - Index numbers of general prices and secular trend.
Equation of the line of trend, $y = 0.1478x + 112.57$. Origin at 1875.

²¹ C. A. Juglar, *A Brief History of Panics in the United States*, English translation, by D. W. Thom, p. 2.

²² W. C. Mitchell, *Business Cycles*, pp. 570-578.

²³ A. Aftalion, *Les Crises périodiques de Surproduction*, vol. II, pp. 397-411.

²⁴ T. Veblen, *The Theory of Business Enterprise*, p. 180.

²⁵ J. H. Brookmire, "Financial Forecasting," *Moody's Magazine*, vol. XVI, p. 159.

1913.²⁶ In twelve of twenty-three cases of changes from year to year all the indices agree as to the direction of the change. For the remaining eleven years Bradstreet's index makes the best showing as a barometer; but the index of the Bureau of Labor Statistics proves to be satisfactory, showing but two cases of direct disagreement with changes in business conditions—in 1895 and 1903. For the period 1879-1889 the Aldrich series is the only one available.

Figure 3 shows the first approximation to the business barometer, the Aldrich and Labor Bureau indices of wholesale prices adjusted to make a continuous series. The secular trend, indicated by the straight line of Figure 3, was determined both by the method of moments and the method of least squares, the results checking exactly.²⁷ In the present investigation of business cycles we are interested in the deviations of the annual figures from the secular trend or what we have termed the "cycles." The difference between the deviation for one year and that for the preceding year, it will be remembered, is the "first difference." The cycles and first differences of prices appear, respectively, in Figures 6 and 7. These series constitute the standard adopted with which to compare the other series under examination.

IV. Illustration of Method Used

The method of treating the various series of statistics is uni-

²⁶ Bulletin of the United States Bureau of Labor, No. 173, *Index Numbers of Wholesale Prices in the United States and Foreign Countries*, p. 111.

²⁷ The method of least squares was applied by correlating prices (or other series) with time measured from 1879, obtaining the equation of the line of regression (the secular trend) by use of the formulas

$$m = r \frac{\sigma_y}{\sigma_x}; b = \bar{y} - m\bar{x}; y = mx + b$$

where r = coefficient of correlation with time
 σ = standard deviation

\bar{x} and \bar{y} = arithmetic averages of the two series

The method of moments was applied by solving the following simultaneous equations:

$$\begin{aligned}\Sigma y &= m\Sigma x + 35b \\ \Sigma xy &= m\Sigma x^2 + \Sigma xb\end{aligned}$$

for m and b and substituting the values found in $y = mx + b$ to obtain the line of secular trend. Both methods were used and gave identical results in some fifteen cases. In the remaining cases the simpler method of moments alone was used.

form and will be explained in detail for the first series examined by the writer, bank clearings.

Following Fisher,²⁸ outside clearings were given a weight of 5 and combined with New York clearings. The graph is presented in Figure 4. The secular trend was computed by the method of

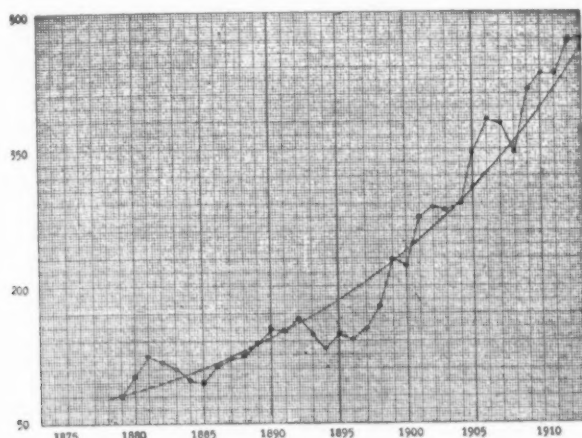


FIGURE 4. - New York clearings plus five times outside clearings, 1879-1913, and secular trend.

Equation of the line of trend, $y = 80.65 (1.0626)^x$. Origin at 1879.

moments, using the compound interest law, $y = BC^x$ (see the smooth curve of Figure 4). The cycles of clearings are the deviations of the original figures from the secular trend thus found. The Pearsonian coefficients of correlation between the cycles of clearings and cycles of wholesale prices were computed.²⁹ The coefficients are (see Table 5): for prices preceding clearings by one year, $+.575$; concurrent, $+.758$; one-year lag, $+.818$; two-year lag, $+.688$; three-year lag, $+.587$. These coefficients indicate a high degree of correlation between the two series, the

²⁸ See *Purchasing Power of Money*, p. 447. Even though outside clearings are as fully reported as New York clearings, as Prof. B. M. Anderson contends, the weighting is justified in the present study on the ground that the outside clearings more strongly reflect conditions of industry rather than speculation; the contrary appears to be true of New York clearings.

²⁹ In the Pearsonian system $+1$ represents perfect direct correlation, -1 represents perfect inverse correlation, and 0 represents lack of correlation between the paired items. In the present study a coefficient of $.45$ may be considered significant, a coefficient of $.60$ high, and one of $.75$ or $.80$ very high. Just as length, weight, or heat must be "sensed" by experience so must the

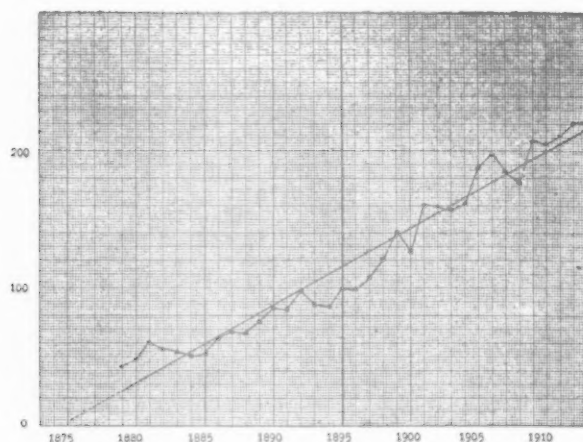


FIGURE 5 - Relative New York clearings plus five times outside clearings divided by relative wholesale prices, 1879-1913, or corrected clearing index, and secular trend. Equation of line of trend, $y = 5.595 + 25.12$ Origin at 1879

maximum occurring for clearings of one year paired with prices of the following year. Further, the series of coefficients has a characteristic conformation, decreasing on either side of the maximum.

There are three elements entering into clearings: first, physical volume of goods exchanged; second, prices of those goods; third, the element due to the inclusion of credit instruments originating with loans and speculations. In order to eliminate the

meaning of the correlation coefficient. For purpose of comparison the following table is given:

Selected coefficients of correlation in man.

Right and left femur.....	.96
Femur and humerus.....	.84 to .87
Stature and femur.....	.80 to .81
Humerus and radius.....	.74 to .84
Weight and length of new-born male infants.....	.644 \pm .012
Weight and stature of Cambridge (Eng.) male students.....	.486 \pm .016
Clavicle and humerus.....	.44 to .63
Forearm and stature.....	.37
Breadth of head and ability, adults.....	.045 \pm .032

The reliability of a coefficient depends not only upon its size but upon the number of items from which it is computed. The following table of probable errors is based upon 35 pairs of items of individual measurements and the assumption of normal distribution:

.95 \pm .011	.75 \pm .050	.55 \pm .079	.35 \pm .099	.15 \pm .111
.90 \pm .022	.70 \pm .058	.50 \pm .085	.30 \pm .103	.10 \pm .112
.85 \pm .031	.65 \pm .066	.45 \pm .090	.25 \pm .106	.05 \pm .113
.80 \pm .041	.60 \pm .073	.40 \pm .095	.20 \pm .109	0 \pm .113

influence of the price element, which would tend to give spurious correlation between clearings and wholesale prices of the same year, clearings were reduced to index numbers and divided by the concurrent items of the wholesale price series. The irregular graph in Figure 5 is the corrected clearing index; the straight line is the secular trend. The same straight line was found by two methods—moments and least squares. The cycles of corrected clearings and prices are shown together in Figure 6.

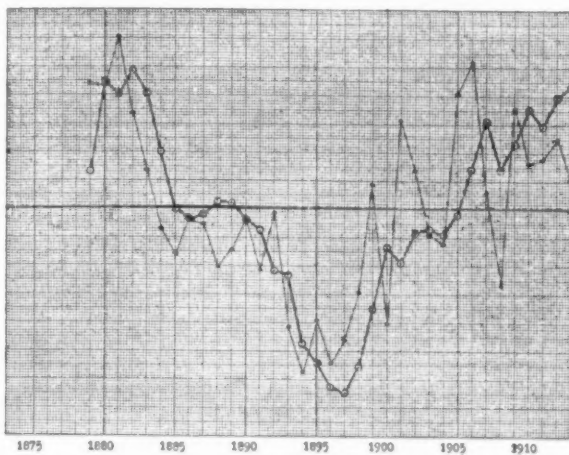


FIGURE 6. - Cycles of corrected clearing index (light line) and of wholesale prices (heavy line), 1875-1915.
The horizontal line represents the secular trends.

Computing the coefficients of correlation for these cycles we have (see Table 3) concurrent, $+0.715$; one-year lag in prices, $+0.852$; two-year lag in prices, $+0.749$. Thus, the lag of one year in prices is more pronounced when correlated with the corrected clearing index (price element eliminated) than with the clearing index. As would be expected, the coefficient for concurrent pairs is smaller and for a lag of two years is larger.

As a check upon the conclusion that cycles of clearings forecast cycles of wholesale prices by one year, the coefficients of correlation between first differences or annual changes of the two series were computed. The coefficients are (see Table 4): concurrent, $+0.039$; one-year lag in prices, $+0.661$; two-year lag, -0.030 . The conclusion is remarkably confirmed. Figure 7 presents the first differences of corrected clearings and prices graph-

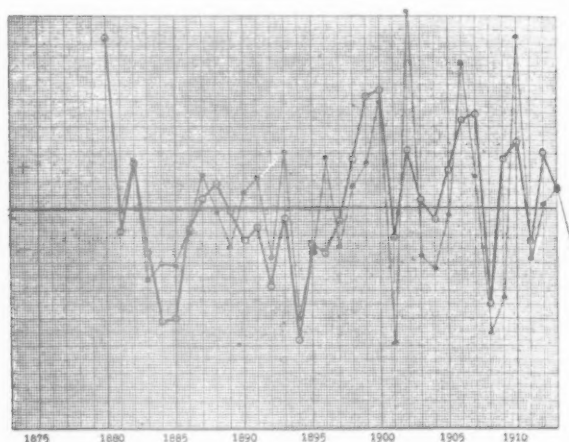


FIGURE 7. - First differences of corrected clearing index (light line) and of wholesale prices (heavy line), 1879-1913, the former shifted one year to the right.

ically; the graph representing clearings (light line) is shifted one year to the right in order to test the correspondence of fluctuations with those of prices.

It will be remembered that both Babson and Brookmire use bank clearings and prices together as elements of their business barometers. The analysis just made indicates that these series should not be so combined, since a movement in clearings forecasts a movement in prices by approximately one year.³⁰

V. Construction of a Business Barometer

Applying the same method as that just described to the other series we are enabled to sort them into ones which have fluctuations concurrent with prices and ones which precede or lag behind prices. The series listed in Tables 1 and 2 fluctuate concurrently with prices and hence should enter the business barometer. The series listed in Tables 3, 5, and 7 have cycles preceding or lagging behind prices and hence should be excluded from the business barometer.

³⁰ The conclusion here stated—that fluctuations in clearings precede fluctuations in industrial conditions (as indicated by general prices)—is confirmed by that of N. J. Silberling (see "The Mystery of Clearings" in the *Annalist* for Aug. 14, 1916). He has found that both New York and outside clearings reflect stock speculation. I have found stock speculation, volume of exchanges and prices, anticipates fluctuations in industry by approximately a year.

TABLE 1.—*Coefficients of correlation between cycles of relative wholesale prices and cycles of series entering into the business barometer, 1879-1913.*

Series correlated with relative wholesale prices:	Coefficients of correlation Prices precede (—) or lag behind (+) by:						
	—2 yr.	—1 yr.	0 yr.	+1 yr.	+2 yr.	+3 yr.	+4 yr.
Gross receipts of railroads . .	+.847	+.917	+.945	+.856	+.748	+.637	—
Net earnings of railroads . .	.690	.763	.862	.839	.803	.811	—
Coal produced . . . . .	.787	.865	.931	.880	.795	.731	.630
Exports from the U. S. . . .	.547	.671	.788	.786	.772	.828	—
Imports into the U. S. . . .	.796	.796	.861	.754	.578	.445	—
Pig-iron produced	—	—	.756	.738	.631	.617	.528
Price of pig-iron . . . . .	.406	.558	.763	.739	.637	.576	—
Immigration ¹ . . . . .	.606	.718	.789	.626	.494	—	—
Relative wholesale prices . .	.811	.923	1.000	.923	.811	.691	.548

¹ Fiscal year. Calendar year for all other series.TABLE 2.—*Coefficients of correlation between the first differences of relative wholesale price cycles and first differences of cycles entering into the business barometer, 1879-1913.*

Series correlated with relative wholesale prices:	Coefficients of correlation		
	Prices 1 year previous	Prices concurrent	Prices 1 year lag
Gross receipts of railroads . .	+.273	+.660	+.074
Net earnings of railroads . .	— .095	+.546	+.177
Coal produced . . . . .	. . .	+.545	+.037
Exports from the U. S. . . .	. . .	+.456	+.111
Imports from the U. S. . . .	— .261	+.621	+.213
Pig-iron produced	— .314	+.408	+.212
Price of pig-iron	— .221	+.713	+.246
Immigration	+.170	+.615	+.046
Relative wholesale prices . .	+.155	+1.000	+.155

TABLE 3.—*Coefficients of correlation between cycles of relative wholesale prices and cycles of the series entering into the one-year forecaster, 1879-1913.*

Series correlated with relative wholesale prices:	Coefficients of correlation Prices precede (—) or lag behind (+) by:					
	—2 yr.	—1 yr.	0 yr.	+1 yr.	+2 yr.	+3 yr.
Shares sold on New York Stock Exchange ¹	+.133	+.244	+.470	+.491	+.508
Average price of shares sold on New York Stock Exchange .	+.548	+.622	+.741	+.826	+.754	+.620
Corrected clearing index	+.715	+.852	+.749	. . .
New railroad mileage	+.436	+.566	+.572	+.418	+.248
Per cent of business failures	— .412	— .628	— .653	+.505	— .251

¹ Coefficients for 4, 5, and 6 year lag are, respectively, +.525, +.520 and +.551.

TABLE 4.—*Coefficients of correlation between first differences of cycles of relative wholesale prices and of cycles entering into the one-year forecaster, 1879-1913.*

Series correlated with relative wholesale prices:	Coefficients of correlation Prices precede (—) or lag behind (+) by		
	0 yr.	+ 1 yr.	+ 2 yr.
Number of shares sold on New York Stock Exchange .	— .033	+ .518	+ .013
Average price of shares sold on New York Stock Exchange .	+ .094	+ .571	+ .060
Corrected clearing index . . .	+ .039	+ .661	— .030
New railroad mileage	+ .208	+ .463	+ .077
Percentage of business failures	— .304	— .615	+ .029

TABLE 5.—*Coefficients of correlation between cycles of relative wholesale prices and cycles of miscellaneous series, 1879-1913.*

Series correlated with relative wholesale prices:	Coefficients of correlation Prices precede (—) or lag behind (+) by							
	—2 yr.	—1 yr.	0 yr.	+1 yr.	+2 yr.	+3 yr.	+4 yr.	+5 yr.
Liabilities of business failures			— .630	— .347	— .403	— .227	— .151	— .075
Imports plus exports			+ .887	+ .854	+ .760			
Clearing index		+ .575	+ .758	+ .818	+ .688	+ .587		
Balance of trade	— .238	— .062	— .017	+ .154	+ .337	+ .417	+ .521	+ .594
Indices of crop yield:								
Annual figures	+ .083	— .041	+ .093	+ .246	+ .326	+ .466	+ .531	+ .491
Imports ÷ Relative wholesale prices			+ .880	+ .785	+ .589			

TABLE 6.—*Coefficients of correlation between first differences of cycles of wholesale prices and of miscellaneous series, 1879-1913.*

Series correlated with relative wholesale prices:	Coefficients of correlation Prices lag behind (+) by					
	0 yr.	+ 1 yr.	+ 2 yr.	+ 3 yr.	+ 4 yr.	+ 5 yr.
Liabilities of business failures .	+ .182	— .465	— .051			
Imports plus exports	+ .670	+ .217	+ .151			
Indices of crop yield:						
Annual figures				+ .019	+ .193	+ .296

Before the nine series of Table 1 were averaged they were reduced to relative numbers by dividing each item by the standard deviation of the series. Using the standard deviations, as the units, results in series which, logically, may be averaged since the series with wide fluctuations have high standard deviations and those with narrow fluctuations have small standard deviations. The process of dividing each series by the standard deviation of that series is equivalent to expressing each series in terms of its standard deviation as a unit; the series of relatives resulting all

TABLE 7.—Coefficients of correlation between cycles of relative wholesale prices and cycles of certain financial series.¹

Series correlated with relative wholesale prices:	Coefficients of correlation Prices precede (—) or lag behind (+) by							
	—2 yr.	—1 yr.	0 yr.	+1 yr.	+2 yr.	+3 yr.	+4 yr.	+5 yr.
Ratio of loans to resources of banks			— .280	— .494	— .770	— .687	— .705	— .670
Ratio of cash to deposits in banks	—0.42	— .177	— .316	— .320	— .285	— .374		
Surplus reserves of New York Assoc. Banks . .	— .178	— .209	— .510	— .481	— .351	— .291		
Average rates of interest on:								
Ten railroad bonds,	+ .573	+ .522	+ .364	+ .052	— .069			
4-6 mos. comm. paper,	+ .152	+ .216	+ .410	+ .147	+ .032			
60-90 days " "	+ .236	+ .314	+ .505	+ .272	+ .193			
Call loans	+ .034	+ .138	+ .434	+ .435	+ .278			
(All in N. Y. market)								

¹The first three series listed are for the period, 1879-1913; the average rates of interest are taken from Mitchell's *Business Cycles* and are for the period, 1890-1911.

TABLE 8.—Coefficients of correlation between first differences of cycles of relative wholesale prices and of certain financial series.¹

Series correlated with relative wholesale prices:	Coefficients of correlation Prices precede (—) or lag behind (+) by			
	— 1 yr.	0 yr.	+ 1 yr.	+ 2 yr.
Ratio of loans to resources		+ .451	— .179	— .221
Ratio of cash to deposits		— .304	— .068	— .136
Surplus reserves of N. Y. banks	+ .189	— .498	— .212	
Average rates of interest on:				
Ten railroad bonds	+ .221	+ .240	— .584	+ .051
4-6 mos. comm. paper	— .116	+ .528	— .219	— .120
60-90 days " "	— .094	+ .527	— .232	— .060
Call loans	— .204	+ .498	+ .186	— .226

¹The first three series listed are for the period 1879-1913; the average rates of interest are taken from Mitchell's *Business Cycles* and are for the period, 1890-1911.

have the same standard deviation. The process gives the same weight, as nearly as may be, to the series averaged. The relative numbers thus obtained, together with their average, are given in Table 10.

Objection has been offered (by Irving Fisher, for instance) to the application of the Pearsonian coefficient of correlation to time series on the ground that the order of the items has no influence on the size of the coefficient. In the present application, involving as it does the computation of several coefficients for each series and prices, the order of the items determines the various associated

TABLE 9.—*Coefficients of correlation, first, between cycles of the business barometer and cycles of various series and, second, between first differences of the business barometer cycles and of cycles of various series, 1879-1913.*

Series correlated with the business barometer:	Lag of the bus. bar.	Coefficients of correlation	
		Cycles	1st diff.
Gross receipts of railroads	0 yr.	+ .939	+ .795
Net earnings of railroads	"	+ .885	+ .781
Coal produced	"	+ .951	+ .847
Exports from the U. S.	"	+ .800	+ .516
Imports into the U. S.	"	+ .877	+ .880
Pig-iron produced	"	+ .865	+ .828
Price of pig-iron	"	+ .785	+ .696
Immigration	"	+ .835	+ .778
Relative wholesale prices	"	+ .945	+ .782
Average of non-price series ¹	"	. . .	+ .857
Ratio of loans to resources of banks ²	0 yr.	. . .	+ .509
Ratio of cash to deposits in banks	"	— .388	— .441
Surplus reserves of N. Y. assoc. banks	"	— .600	— .724
Shares sold on N. Y. stock exchange	1 yr.	+ .400	+ .521
Average price of shares sold on exchange	"	+ .766	+ .504
Corrected clearing index	"	+ .795	+ .524
New railroad mileage	"	+ .525	+ .224
Percentage business failures	"	— .775	— .308
Average of 5 preceding series	"	+ .860	+ .510
Average of corrected clearings and price of shares sold	"	+ .800	+ .545
Weighted index numbers of the yield per acre of nine leading crops, three-year averages	4 yr.	+ .655	. . .

¹ Gross receipts and net earnings of railroads, coal and pig-iron produced, and immigration.

² The coefficient of correlation between the cycles for a two-year lag in the business barometer is — .602.

TABLE 10.—Cycles of various series in terms of the resp

Year	1 Wholesale prices	2 Gross receipts of railroads	3 Net earnings of railroad	4 Coal produced	5 Exports from the U. S.	6 Imports into the U.S.	7 Pig-iron produced	8 Price of pig-iron	9 Immigration*	10 Shares sold on N. Y. Exchange	11 Average price of shares sold on N. Y. Exch.	12 Clearing index [†]	13 Corn clearing index
1879	+ .42	+ .99	+ .92	+ 1.21	+ 1.59	+ .39	+ 1.04	+ .22	— .62	+ .14	+ .28	— 9	+
1880	+ 1.40	+ 1.03	+ 1.17	+ .96	+ 1.94	+ 1.28	+ 1.15	+ 2.18	+ .54	+ .54	+ 1.90	+ 147	+
1881	+ 1.27	+ 1.12	+ 1.12	+ .98	+ 1.44	+ .94	+ .97	+ 1.29	+ 1.41	+ .82	+ 2.02	+ 340	+
1882	+ 1.53	+ 1.07	+ .96	+ 1.07	+ .90	+ 1.22	+ .87	+ 1.51	+ 1.87	+ .76	+ 1.11	+ 228	+
1883	+ 1.28	+ 1.03	+ .94	+ 1.01	+ .80	+ .72	+ .63	+ .59	+ .96	+ .33	+ .73	+ 99	+
1884	+ .53	+ .52	+ .34	+ .79	+ .35	+ .22	+ .17	— .11	+ .51	+ .23	+ .21	— 72	—
1885	.00	+ .17	+ .10	+ .22	— .20	— .17	— .14	— .56	— .12	+ .08	+ .37	— 151	—
1886	— .12	+ .13	+ .22	— .03	— .25	+ .06	+ .17	— .34	— .47	+ .19	+ .43	— 38	—
1887	— .06	+ .26	+ .41	+ .03	— .55	+ .17	+ .14	+ .34	+ .15	— .19	— .35	— 1	—
1888	+ .08	+ .04	— .26	+ .14	— .90	+ .11	— .10	— .20	+ .33	— .64	— .30	— 49	—
1889	+ .06	— .09	— .23	— .39	— .40	+ .22	.00	— .45	— .21	— .58	— .65	+ 26	—
1890	— .13	+ .04	— .18	— .31	— .50	+ .33	+ .31	— .25	— .24	— .68	— .91	+ 101	—
1891	— .24	— .13	— .32	— .39	— .20	+ .22	— .28	— .45	+ .15	— .78	— 1.50	— 6	—
1892	— .69	— .21	— .53	— .48	— .55	+ .11	— .24	— .90	+ .36	— .52	— .76	+ 65	—
1893	— .74	— .34	— .70	— .73	— 1.14	— .39	— 1.25	— 1.20	— .26	— .70	— 1.36	— 193	—
1894	— 1.50	— 1.24	— 1.44	— 1.38	— 1.59	— 1.11	— 1.67	— 1.68	— 1.18	— 1.38	— .97	— 433	—
1895	— 1.71	— 1.46	— 1.62	— 1.18	— 1.79	— .61	— 1.00	— 1.51	— 1.41	— 1.11	— 1.66	— 360	—
1896	— 1.97	— 1.59	— 1.75	— 1.55	— 1.14	— 1.44	— 1.53	— 1.51	— 1.20	— 1.40	— 1.14	— 521	—
1897	— 2.04	— 1.89	— 1.86	— 1.66	— .90	— 1.28	— 1.42	— 1.74	— 1.78	— 1.05	— 1.04	— 498	—
1898	— 1.76	— 1.67	— 1.53	— 1.52	— .35	— 2.06	— .97	— 1.79	— 1.87	— .43	— .39	— 374	—
1899	— 1.11	— 1.59	— 1.05	— 1.01	— .55	— 1.28	— .63	+ .39	— 1.57	+ .74	+ .28	+ 27	—
1900	— .43	— 1.20	— .86	— .95	+ .30	— 1.28	— .83	+ .62	— 1.04	— .08	— 1.18	— 164	—
1901	— .60	— 1.03	— .64	— .70	.00	— 1.17	— .38	— .50	— .94	+ 2.35	+ .03	+ 259	—
1902	— .27	— .86	— .39	— .84	— .75	— .83	.00	+ 1.32	— .30	+ .76	.00	+ 221	—
1903	— .22	— .39	— .23	+ .20	— .40	— .83	— .17	+ .70	+ .55	+ .16	— 1.08	+ 55	—
1904	— .28	— .39	+ .10	— .28	— .80	— .78	— .97	— .45	+ .28	+ .60	— 1.69	— 24	—
1905	— .06	— .13	+ .42	+ .42	— .10	— .17	+ 1.01	+ .22	+ 1.15	+ 2.00	+ .57	+ 379	—
1906	+ .44	+ .60	+ 1.48	+ .62	+ .50	+ .44	+ 1.53	+ 1.15	+ 1.41	+ 2.35	+ 1.87	+ 587	—
1907	+ .99	+ 1.37	+ 1.76	+ 1.91	+ .90	+ .89	+ 1.42	+ 1.99	+ 2.15	+ .56	+ .06	+ 377	—
1908	+ .44	+ .26	+ .11	— .06	— .20	— .94	— 2.29	+ .81	— .17	+ .50	+ .01	— 126	—
1909	+ .73	+ .39	+ 1.51	+ .67	— .60	+ .89	+ .87	+ .36	— .38	+ .80	+ 1.37	+ 373	—
1910	+ 1.11	+ 1.33	+ 2.09	+ 1.38	— .05	+ 1.17	+ 1.15	+ .28	+ .83	— .27	+ 1.05	+ 352	—
1911	+ .92	+ .99	.00	+ .87	+ .80	+ .83	— .42	— .14	+ .03	— 1.07	+ .85	+ 148	—
1912	+ 1.25	+ 1.03	— .31	+ 1.49	+ 2.09	+ 2.28	+ 1.42	+ .14	— .22	— 1.05	+ .97	+ 279	—
1913	+ 1.36	+ 2.02	+ .43	+ 2.05	+ 2.34	+ 1.95	+ 1.60	+ .31	+ 1.30	— 2.06	+ .62	+ 80	—

¹ In hundred millions, not in terms of standard deviation.² Signs reversed.³ Fiscal year ending June 30.

Cycles of various series in terms of the respective standard deviations as units, together with the business barometer and one-year forecasters.

10	11	12	13	14	15	16	17	18	19	20	21
Shares sold on N. Y. Exchange	Average price of shares sold on N. Y. Exch.	Clearing index ¹	Corrected clearing index	New railroad mileage	Per cent of business failures ²	Liabilities of business failures	Balance of trade	Indices of crop yield	Ratio of loans to resources	Ratio of cash to deposits	Surp- serv- N. Y.
+ .14	+ .28	— 9	+ 1.41	— .82	+ .45	— .52	+ 1.70	+ 2.06	— 2.08	— .83	—
+ .54	+ 1.90	+ 147	+ 1.38	+ .04	+ 2.26	— 1.16	+ 1.17	+ 1.29	— 1.46	— 1.00	—
+ .82	+ 2.02	+ 340	+ 1.94	+ 1.42	+ 1.75	— .92	+ .84	— 1.80	— 1.40	— .51	—
+ .76	+ 1.11	+ 228	+ 1.08	+ 2.24	+ 1.13	— .56	— .31	+ .39	— .88	— 1.48	—
+ .33	+ .73	+ 99	+ .43	+ .17	— .28	+ .73	+ .22	— 0	— .20	— .57	—
+ .23	+ .21	— 72	— .24	+ .90	— 1.13	+ 1.69	+ .19	+ .51	— .07	— .43	+
+ .08	+ .37	— 151	— .52	— 1.34	— .85	— .26	— .07	— .00	— .80	— 2.12	+
+ .19	+ .43	— 38	— .13	+ .91	— .06	— .45	— .54	— .64	+ .14	— .28	—
— .19	— .35	— 1	— .18	+ 3.06	+ .56	+ .51	— .98	— 1.29	+ .84	— .49	—
— .64	— .30	— 49	— .65	+ .52	— .17	— .36	— 1.36	+ .13	+ 1.20	— .56	+
— .58	— .65	+ 26	— .47	+ .17	— .28	+ .07	— .84	+ .51	+ 1.40	— .85	+
— .68	— .91	+ 101	— .11	— .04	— 0	+ .81	— 1.12	— 1.41	+ 2.04	— .34	—
— .78	— 1.50	— 6	— .70	— .60	— .51	+ .77	— .48	+ 1.03	+ 1.98	— .54	—
— .52	— .76	+ 65	— .05	— .39	+ .51	— .69	— .92	— .39	+ 1.78	— .66	—
— .70	— 1.36	— 193	— 1.35	— 1.25	+ 2.26	+ 3.63	— 1.01	— 1.16	+ 2.04	— .52	+
— 1.38	— .97	— 433	— 1.87	— 1.38	— 1.53	+ .34	— .78	— 1.54	+ .52	— 2.96	+
— 1.11	— 1.66	— 360	— 1.28	— 1.42	— 1.13	+ .30	— 1.78	— .00	+ .52	— 1.27	+
— 1.40	— 1.14	— 521	— 1.75	— 1.34	— 2.32	+ 1.27	+ .20	— .13	+ .56	— .42	+
— 1.05	— 1.04	— 498	— 1.49	— 1.25	— 1.58	— .11	+ .33	— .13	— .23	— 1.07	+
— .43	— .39	— 374	— .96	— 1.03	— .73	— .58	+ 2.04	+ 1.03	— .20	— .98	+
+ .74	+ .28	+ 27	+ .28	— .22	+ .62	— 1.37	+ .92	+ .13	— .78	— .17	—
+ .08	— 1.18	— 164	— 1.31	— .43	— .28	— .52	+ 2.01	— .00	— .75	— .35	—
+ 2.35	+ .03	+ 259	+ .99	+ .09	— .23	— 1.03	+ 1.44	— 2.06	— .91	— .97	—
+ .76	+ .00	+ 221	+ .42	— 0	+ .34	— .97	— .03	+ 1.16	— .36	— 1.05	—
+ .16	— 1.08	+ 55	— .30	+ .13	+ .68	— .32	+ .53	+ .13	— .28	— 1.24	—
+ .60	— 1.69	— 24	— .40	+ .47	+ .34	— .56	— .10	+ 1.03	— .81	— .26	+
+ 2.00	+ .57	+ 379	+ 1.30	+ .43	+ .68	— 1.37	+ .01	+ 1.29	— .56	— 1.17	—
+ 2.35	+ 1.87	+ 587	+ 1.66	+ .69	+ 1.07	— 1.09	+ .10	+ 1.54	— .21	— 1.45	—
+ .56	+ .06	+ 377	+ .19	+ .82	+ .79	+ .34	+ .14	— .13	— .14	— 1.15	—
+ .50	+ .01	— 126	— .88	+ .17	— .62	+ .77	+ .97	+ .13	— .97	— .99	+
+ .80	+ 1.37	+ 373	+ 1.13	+ 1.25	+ .62	— .52	— 1.82	— .00	— .47	— .79	—
— .27	+ 1.05	+ 352	+ .52	+ .22	+ .73	+ .32	— 1.59	— .00	+ .11	— .02	+
— 1.07	+ .85	+ 148	+ .56	+ .13	+ .56	+ .07	+ .09	— 1.29	— .09	— .52	+
— 1.05	+ .97	+ 279	+ .79	— .04	— .11	+ .26	+ .12	+ 1.16	+ .09	— .17	—
— 2.06	+ .62	+ 80	+ .34	+ .04	— .23	+ 1.54	+ .78	— 1.16	+ .40	— .00	—

casters.

20	21	22	23	24	25	Average of series 1 to 9 inclusive	Average of series 2, 3, 4, 7 and 9	Average of series 11 and 13	Average of series 10, 11, 13, 14 and 15
no of h to osits	Surplus re- serves of N. Y. banks	Interest rate on 10 rail- road bonds	Interest rate on 4-6 months' paper	Interest rate on 60-90 dy. paper	Interest rate on call loans				
.83	— .56	...	...	...	...	+ .684	+ .708	+ .85	+ .292
1.90	— .64	...	...	...	...	+ 1.294	+ .970	+ 1.64	+ 1.224
.51	— .81	...	...	...	...	+ 1.171	+ 1.120	+ 1.98	+ 1.590
1.48	— .91	...	...	...	...	+ 1.222	+ 1.168	+ 1.10	+ 1.264
.57	— .86	...	...	...	...	+ .884	+ .914	+ 1.08	+ .276
.43	+ .63	...	...	...	...	+ .380	+ .466	— .02	— .384
2.12	+ 2.81	...	...	...	...	— .078	+ .046	— .08	— .452
.28	— .08	...	...	...	...	— .070	+ .004	+ .15	+ .268
.49	— .60	...	...	...	...	+ .008	+ .034	— .27	+ .580
.56	+ .12	...	...	...	...	— .084	+ .030	— .48	— .248
.85	— .72	...	...	...	...	— .166	+ .184	— .560	— .430
.34	— 1.04	+ .44	+ .81	+ .95	+ 1.46	— .103	— .076	— .51	— .348
.64	— .36	+ 1.18	+ .33	+ .72	— .03	— .182	— .194	— 1.10	— .818
.66	— .08	+ .44	— 1.19	— .72	— .28	— .348	— .220	— .41	— .242
.52	+ .42	+ 1.10	+ 2.09	+ 2.26	+ .67	— .750	— .656	— 1.36	— 1.384
2.96	+ 2.46	+ .57	— 1.26	— 1.75	— 1.52	— 1.421	— 1.382	— 1.42	— 1.426
1.27	+ .95	+ .22	— .46	— 1.12	— 1.04	— 1.366	— 1.334	— 1.47	— 1.320
.42	+ .37	+ .66	+ 1.47	+ 1.13	+ .42	— 1.520	— 1.524	— 1.45	— 1.590
1.07	+ 1.78	+ .13	— 1.74	— 1.17	— 1.10	— 1.619	— 1.722	— 1.27	— 1.282
.98	+ 1.15	— .44	— .81	— .89	— .87	— 1.502	— 1.512	— .68	— .708
.17	— .04	— 1.36	— .50	— .64	+ .91	— .933	— 1.170	+ .28	+ .340
.35	— .24	— 1.27	— .09	— .29	— .40	— .630	— .976	— 1.25	— .544
.97	— .38	— 1.80	— .44	— .43	+ .24	— .662	— .738	+ .51	+ .738
1.05	— .71	— 1.71	+ .13	+ .25	+ 1.01	— .324	— .478	+ .21	+ .304
1.24	— .63	— .70	+ .85	+ .84	+ .11	— .088	— .008	— .69	— .082
.26	+ .74	— .70	— .60	— .40	— 1.15	— .397	— .252	— 1.05	— .136
1.17	— .78	— 1.01	— .46	— .28	+ .47	+ .307	+ .574	+ .94	+ .996
1.45	— 1.05	— .31	+ 1.14	+ 1.13	+ 1.73	+ .908	+ 1.128	+ 1.62	+ 1.428
1.15	— 1.72	+ 1.10	+ 1.67	+ 1.76	+ 2.24	+ 1.487	+ 1.722	+ .13	+ .484
.99	+ 1.77	+ 1.01	— .54	— .18	— 1.06	— .282	— .430	— .44	— .164
.79	— .35	+ .48	— .86	— .76	— .62	+ .493	+ .612	+ 1.25	+ 1.034
.02	+ .03	+ 1.23	+ .71	+ .45	— .45	+ 1.032	+ 1.356	+ .79	+ .450
.52	+ .49	+ 1.49	— .64	— .58	— .71	+ .431	+ .294	+ .71	+ .206
.17	— .52	...	...	...	...	+ 1.019	+ .682	+ .88	+ .112
.00	— .47	...	...	...	...	+ 1.484	+ 1.480	+ .48	— .258



pairs and hence the relative size of the coefficients of correlation between cycles. Also the sequence of the items in the series determines the first differences and hence the values of the coefficients based upon such first differences. The conclusion as to what series have concurrent fluctuations with prices and hence should enter the business barometer does not depend, so much, on the absolute size of the coefficients as upon their relative size, and conformation as to size when arranged according to lag. The series of coefficients between cycles of wholesale prices and wholesale prices with various degrees of lag offers a standard for comparison (see last line of Table 1). In every series of Table 1, except imports, the coefficients gradually increase, reaching a maximum for concurrent items, and then as gradually decrease. The conclusions

TABLE 11.—Equations of lines of secular trend and standard deviation of cycles.¹

Series	Equation of line of secular trend	Standard deviation of cycles
1. Wholesale prices.....	$y = .1475x + 112.9$	12.7
2. Gross receipts of railroads.....	$y = 7.062x + 30.03$	23.3
3. Net earnings of railroads.....	$y = 19.58x + 141.7$	81.3
4. Coal produced.....	$y = 12.27x + 18.07$	35.6
5. Exports from the U. S.....	$y = 4.626x + 44.94$	20.1
6. Imports into the U. S.....	$y = 2.94x + 44.0$	18.0
7. Pig-iron produced.....	$y = 7.852x - 3.00$	28.8
8. Price of pig-iron.....	$y = .1464x + 20.89$	3.6
9. Immigration (fiscal year).....	$y = 17.31x + 318.2$	224.0
10. Shares sold on N. Y. Exchange.....	$y = 3.61x + 66.0$	51.5
11. Average price of shares on N. Y. Exchange	$y = 1.09x + 54.8$	7.2
12. Clearing index	$y = 80.63 (1.0526)^x$	—
13. Corrected clearing index.....	$y = 5.60x + 25.0$	12.4
14. New railroad mileage.....	$y = -1.087x + 67.11$	23.2
15. Percent of business failures.....	$y = .462x + 103.3$	17.7
16. Liabilities of business failures.....	$y = 1.905x + 126.1$	53.4
17. Balance of trade.....	$y = 16.807x + 9.34$	143.0
18. Index numbers of crop yield.....	$y = .432x + 95.25$	7.8
19. Ratio of loans to resources.....	$y = .0644x + 53.44$	3.1
20. Ratio of cash to deposits.....	$y = .144x + 13.75$	1.1
21. Surplus reserves of N. Y. banks.....	$y = .2282x + 13.51$	11.8
22. Average rate of interest on:		
Ten railroad bonds.....	$y = .0381x + 4.625$	.23
23. 4-6 mos. paper.....	$y = .0556x + 6.32$	.70
24. 60-90 dy. paper.....	$y = .00711x + 4.738$	.95
25. Call loans	$y = .012x + 3.462$	1.61

¹ Origin of line of secular trend at 1879 except for numbers 22 to 25 for which origin is at 1890. The standard deviations times the respective series of Table 10 will give the cycles in the original units.

TABLE 12.—*Coefficients of correlation between cycles and multiple differences, first to sixth, of business barometer and those of the series entering into the business barometer, 1879-1913.*
(Various degrees of lag)

Series correlated with business barometer:	Difference	Coefficients of correlation						
		Business barometer precedes (—) or lags behind (+) by:						
		-3 yr.	-2 yr.	-1 yr.	0 yr.	+1 yr.	+2 yr.	+3 yr.
Gross receipts of railroads	C	...	...	...	+.94	...	...	...
	1st	...	...	+.34	+.80	-.28	...	...
	2nd	...	...	+.08	+.74	-.64	...	...
	3rd	...	...	-.06	+.74	-.71	...	...
	4th	...	...	-.18	+.76	-.74	...	...
	5th	+.25	-.22	-.24	+.75	-.75	+.25	+.09
Net earnings of railroads	6th	...	...	...	+.74	...	...	...
	C	...	...	...	+.89	...	...	...
	1st	...	...	...	+.78	...	...	...
	5th	...	...	-.49	+.76	-.39	...	...
Coal produced	6th	...	...	...	+.72	...	...	...
	C	...	...	...	+.95	...	...	...
	1st	...	...	...	+.85	...	...	...
	5th	...	...	-.62	+.90	-.81	...	...
Exports from the U. S.	6th	...	...	...	+.90	...	...	...
	C	...	...	...	+.80	...	...	...
	1st	...	...	...	+.52	...	...	...
	5th	...	...	-.11	+.38	-.46	...	...
Imports into the U. S.	6th	...	...	...	+.37	...	...	...
	C	...	...	...	+.88	...	...	...
	1st	...	...	...	+.83	...	...	...
	5th	...	...	-.82	+.83	-.42	...	...
Pig-iron produced	6th	...	...	-.84	+.83	-.49	...	...
	C	...	...	...	+.87	...	...	...
	1st	...	...	...	+.83	...	...	...
	5th	...	...	-.83	+.87	-.36	...	...
Price of pig-iron	6th	...	...	-.86	+.86	-.43	...	...
	C	...	...	...	+.79	...	...	...
	1st	...	...	...	+.70	...	...	...
	5th	...	...	-.54	+.65	-.36	...	...
Immigration	6th	...	...	...	+.65	...	...	...
	C	...	...	...	+.84	...	...	...
	1st	...	...	...	+.78	...	...	...
	5th	...	...	-.36	+.82	-.85	...	...
Relative wholesale prices	6th	...	...	...	+.81	...	...	...
	C	...	...	...	+.95	...	...	...
	1st	...	...	+.20	+.78	-.03	...	...
	2nd	...	...	-.22	+.78	-.46	...	...
	3rd	...	...	-.35	+.78	-.57	...	...
	4th	...	...	-.40	+.76	-.59	...	...
Relative whole-sale prices	5th	+.12	-.01	-.42	+.74	-.58	+.15	+.09
	6th	...	...	...	+.71	...	...	...

derived from Table 1 are confirmed by Table 2, in which the maximum coefficients are more strongly set off from the neighboring values than in the former table. The coefficients for first differences of imports warrant the conclusion that imports fluctuate concurrently with prices.

It will be noticed that four of the nine series listed in Tables 1 and 2 are themselves price series: *i. e.*, exports from the United States, imports into the United States, price of pig-iron, and wholesale prices of commodities. An average of the non-price series—*i. e.*, gross receipts and net earnings of railroads, coal and pig-iron production, and immigration—was taken in order to compare the fluctuations with those of wholesale prices (see Figure 8). The correspondence is very great.

Figure 9 presents the cycles of the business barometer computed from the nine series of Table 1 (the dotted line) together with cycles of wholesale prices. Figure 10 presents the first differences of the two series.

The coefficients of correlation between the cycles of the various

TABLE 13.—Probable errors of coefficients of correlation for multiple differences, first to sixth, with 35 items in the original series.¹

Coefficients of correlation	Order of difference					
	First	Second	Third	Fourth	Fifth	Sixth
	±	±	±	±	±	±
.95	.014	.015	.017	.019	.020	.021
.90	.027	.031	.034	.037	.039	.042
.85	.039	.045	.050	.054	.058	.061
.80	.051	.059	.065	.070	.075	.079
.75	.062	.071	.078	.085	.091	.096
.70	.072	.083	.091	.099	.106	.112
.65	.081	.094	.104	.112	.120	.127
.60	.090	.104	.115	.124	.132	.140
.55	.098	.113	.125	.135	.144	.153
.50	.106	.122	.134	.145	.155	.164
.45	.112	.130	.143	.155	.165	.175
.40	.118	.136	.151	.163	.174	.184
.35	.124	.142	.157	.170	.182	.193
.30	.128	.148	.163	.177	.188	.200
.25	.132	.152	.168	.182	.194	.206
.20	.135	.156	.172	.186	.199	.211
.15	.138	.159	.175	.190	.202	.214
.10	.139	.161	.177	.192	.205	.217
.05	.140	.162	.179	.194	.206	.219
.00	.140	.163	.179	.194	.207	.219

¹ Computed by the formula given by A. Ritchie-Scott in *Biometrika*, November 1915, p. 136, based on the work of O. Anderson, *ibid.*, November, 1914.

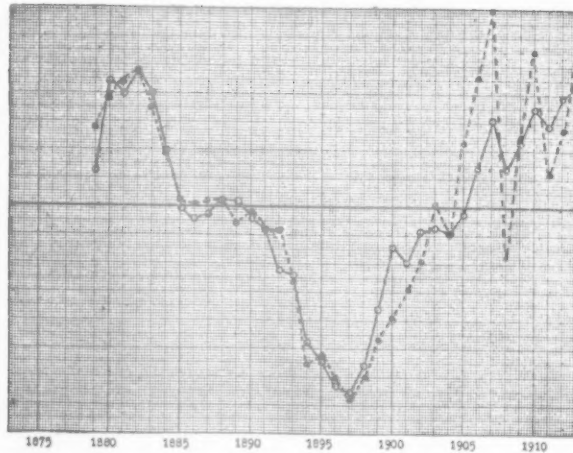


FIGURE 8. - Cycles of wholesale prices (solid line) and of the average of five non-price series: i.e., gross and net railroad earnings, coal and pig-iron production, and immigration (dotted line), 1879-1913.

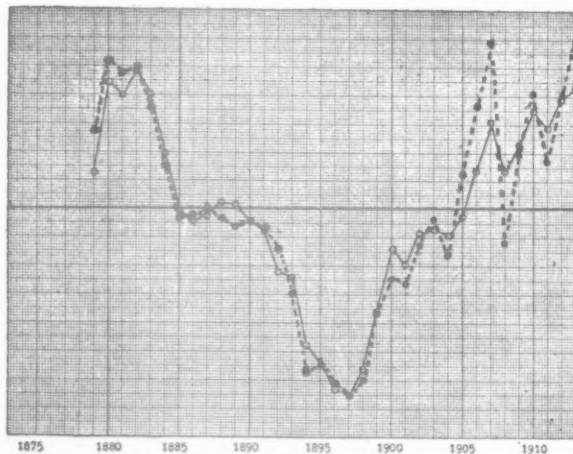


FIGURE 9. - Cycles of wholesale prices (solid line) and of a business barometer (dotted line) constructed by averaging nine series, 1879-1913.

series examined and the cycles of the business barometer, as found above, are given in column two of Table 9, but only for the year of maximum correlation as found when correlating the series with wholesale prices. The coefficients of correlation between the first differences are given in column three of the same table. As would be expected, these coefficients are, as a rule, greater than those

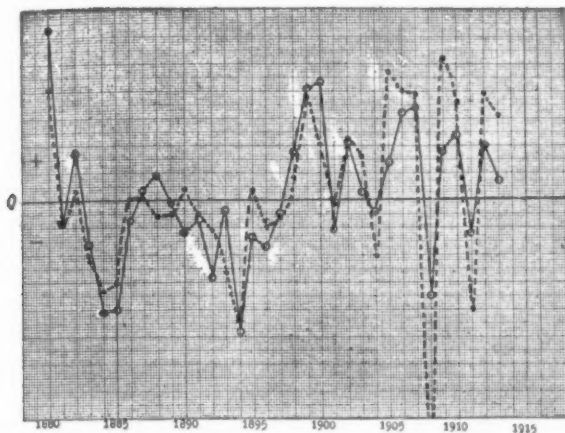


FIGURE 10. - First differences of cycles of wholesale prices (solid line) and of the business barometer (dotted line), 1870-1913.

of Tables 1 and 2. These unusually high coefficients, ranging from $+.785$ to $+.951$ for the cycles and from $+.516$ to $+.847$ for the first differences, certainly warrant the conclusion that these are homogeneous series. Of course, there is a small element of spurious correlation due to the fact that each series enters the barometer with which it is correlated.

VI. Construction of a One-year Forecaster

The analysis of the twenty-five series of statistics has resulted in the selection of nine series for the construction of a business barometer. The analysis has, at the same time, designated certain other series as having fluctuations preceding those of the business barometer and, therefore, useful in forecasting business cycles. Such series are listed with their coefficients of correlation in the lower part of Table 9. They are: shares sold on the New York Stock Exchange and their average price, the corrected clearing index, new railroad mileage, and percentage of business failures. The corrected clearing index and the average price of shares are the only series having significant coefficients between both cycles and first differences and those of the business barometer; the coefficients being $+.795$ and $+.524$ for clearings and $+.766$ and $+.504$ for stock prices. One-year forecasters of these two series and of the five series named above (the signs of the items in the series of percentage of business failures being re-

versed) have been computed, the standard deviations being used as the units of the respective series. The resulting relative numbers are presented in Table 10 and, graphically, with the business barometer, in Figure 11. It appears from that figure that the fluctuations of the one-year forecasters do precede by one year, as a rule, those of the business barometer. The coefficients of correlation between the cycles and first differences, respectively, of the average of the five series and the business barometer are $+.860$ and $+.510$.

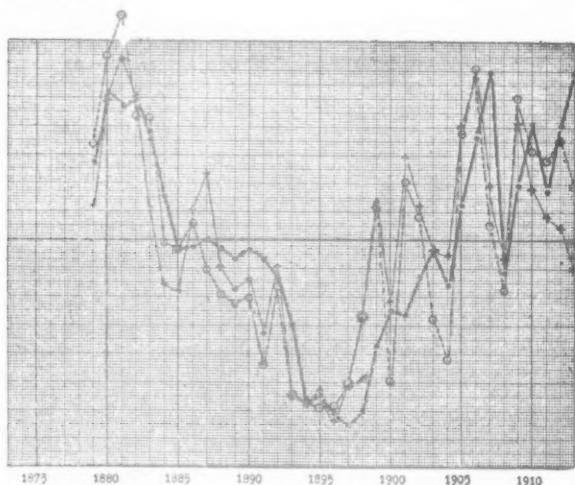


FIGURE 11. - Cycles of business barometer (heavy line),
average of corrected clearing index and stock prices (dotted line),
and average of five series (light line).

In forecasting, the first differences are of greater significance than the cycles. The information desired is the direction and probable magnitude of the movement of the business barometer next year as compared with this year. There are three series among the five under consideration having a significant degree of correlation between their first differences and those of the business barometer: shares sold, price of shares, and corrected clearings, with coefficients of $+.521$, $+.504$, and $+.524$, respectively. Suppose the adequacy of the three series in forecasting direction of change (not magnitude) be tested:

If the signs of the first differences of the three series be tabulated, if the two or three like signs of any year (plus or minus) be taken to indicate a like direction of change in the business

barometer of the following year, and if the number of agreements and disagreements with the actual change of the business barometer be counted, we obtain the following results:

25 cases of agreement in sign;

9 cases of disagreement in sign.

We may, then, roughly state the degree of accuracy with which direction of change in the business barometer is forecasted as

$$\frac{25 - 9}{34} = +0.47, \text{ in a scale in which zero stands for an equal}$$

number of agreements and disagreements. Of the nine cases of disagreement, seven of the forecasting signs agree with the business barometer of the same year. This result suggests that the forecasting series do not forecast by exactly a year, but by a varying period, say nine or ten months on the average. A refinement of the present study is thus indicated in which quarterly data would be used and the lag determined for a three, six, nine, or twelve months period.³¹

A moderately high degree of correlation (+.655) has been found between the weighted index numbers of the yield per acre of the nine leading crops (three-year averages) and the business barometer, the latter having a four-year lag. Moore found a coefficient of correlation between cycles in the yield of crops and cycles in general prices lagging four years behind crops (three-year averages in both cases) of +.800.³² It appears that crop yields for a series of years forecast business conditions for a series of years rather than for any particular year. However, coefficients of correlation based upon three-year averages are extremely difficult to interpret.

VII. Application of Method of Variate Differences

Since making the investigation previously described I have discovered an article on "The Elimination of Spurious Correlation due to Position in Time or Space"³³ which develops a method of dealing with the problem just considered. In that article reference is made to the method of correlating corresponding differences

³¹ This study has been made by the writer. Various series have been found that forecast movements in the business barometer by three to nine months.

³² H. L. Moore, *Economic Cycles*, p. 122.

³³ The Elimination of Spurious Correlation due to Position in Time or Space," by "Student," in *Biometrika*, April, 1914, pp. 179-180.

between successive items (which I had used) in order to eliminate the spurious element of correlation in time series due to a linear connection between the variables and time. A generalization of that method is secured applicable to series of variables which are n th degree functions of time. According to this generalization:

If we wish to determine variability due to position in time or space and to determine whether there is any correlation between the residual variations, all that has to be done is to correlate the 1st, 2d, 3d... n th differences between successive values of our variable with the 1st, 2d, 3d... n th differences between successive values of the other variable. When the correlation between the two n th differences is equal to that between the two $(n+1)$ th differences, the value gives the correlation required.³⁴

This method has been named by Professor Karl Pearson the *Variate Difference Correlation Method* and it has been applied by him to certain Italian economic data.³⁵

The Variate Difference Correlation Method has been applied to the business barometer and the nine series entering therein. The results are given in Table 12. For two series—*i. e.*, gross receipts of railroads and wholesale prices—the coefficients have been computed for the cycles and the 1st to the 6th differences, inclusive, for concurrent pairs and for degrees of lag as indicated in the table. For the remaining seven series the coefficients for the cycles, 1st, 5th, and 6th differences have been found. It will be noticed that in every case except for exports there is a high degree of stability shown by the coefficients for concurrent pairs with the business barometer. Table 13 gives the probable errors of coefficients of correlation for multiple differences, first to sixth, with 35 items in the original series. For a coefficient between sixth differences of .65 the probable error is $\pm .13$. Judgment based on a coefficient of .65 or more is, therefore, reliable. When the pairings are for a lag in either direction the coefficients are either numerically small or negative. The additional evidence given by application of the new method leads to the following conclusion:

The selection of the series entering into the business barometer is confirmed. The only series concerning which there is a question is exports and its questionability is indicated by the decrease in the coefficient for 1st differences as compared with that for cycles

³⁴ *Biometrika*, April, 1914, p. 180.

³⁵ "Numerical Illustrations of the Variate Difference Correlation Method," by Beatrice M. Cave and Karl Pearson, in *Biometrika*, November, 1914, pp. 340-355.

as well as by the decrease in the coefficient for the 5th and 6th differences.

These coefficients, being between series and an index secured by summing them, contain a certain spurious element. However, that element can not be large. On the supposition that *there is no correlation whatever* between a selected series and the remaining series entering into the barometer, the spurious element could not be more than 0.33. In fact, the spurious element is undoubtedly far less, say .05 or less, because the series are highly correlated with each other.

Finally, let me say that before the method of variate differences can be applied with confidence it must be subjected to thorough analysis and experimentation in order that its limitations may be clear. Such analysis I hope to make.

In conclusion, a business barometer has been constructed from nine series of annual figures which were found to fluctuate concurrently with wholesale prices. Other series have been found in which the fluctuations precede those of the business barometer. Further investigation based upon quarterly or monthly data is necessary for the most intelligent use of fundamental statistics in forecasting business conditions.

WARREN M. PERSONS.

Harvard University.

THE FEDERAL FARM LOAN ACT

The passage of a land credit measure by the federal government has at last been accomplished. On July 17, 1916, President Wilson approved the Federal Farm Loan bill, thereby settling for a time a question that has given rise to no small amount of legislative interest. During the past four years repeated attempts have been made to discover a practical formula for constructive land credit legislation. The merits of various programs have been carefully estimated and discussed. Now that the mystery surrounding one of the problems of agricultural finance has been definitely cleared, and a program of reform finally adopted, it is expected that the long-term credit facilities of farmers will be improved in no less degree than the Federal Reserve act improved the machinery for granting loans to the commercial classes. Incidentally, the new law marks the fulfilment of a party platform pledge, a pledge that was accepted and ardently supported by the President during his candidacy.

I

The steps leading up to the enactment of this important piece of legislation may be briefly noted. The Country Life Commission, created in 1908, found that among the causes contributing to the deficiencies of country life was the "lack of any adequate system of agricultural credit whereby the farmer may readily secure loans on fair terms,"¹ and suggested that "a method of coöperative credit would undoubtedly prove of great service."² This view was favorably received by those who saw in the rural problem an economic cause—who believed that the conditions of country life could be made more attractive only by the adoption of a program that would promote the prosperity of the agricultural worker. Further support was given to this point of view by the report of the National Monetary Commission which contained a stimulating account of the German *landschaft* system.

Public interest in the possibilities of coöperative credit was immediately aroused. Investigations of European systems were undertaken not only by prominent organizations like the American Bankers' Association, but also—at the instance of President

¹ Sen. Doc. No. 705, 60 Cong., 2 Sess., p. 15.

² *Ibid.*, p. 59.

Taft who had become convinced of the need and feasibility of a system of coöperative credit³—by the American diplomatic representatives in certain European countries. Subsequently, the desire to study at first hand and to popularize the methods employed by coöperative credit and coöperative marketing organizations led the Southern Commercial Congress to assemble the American Commission. And, finally, it is especially noteworthy that the United States Commission was appointed not for the purpose of inquiring into European or Australian systems of state loans but rather “to investigate and study in European countries *coöperative* land-mortgage banks, *coöperative* rural credit unions, and similar organizations and institutions devoting their attention to the promotion of agriculture and the betterment of rural conditions.”⁴

Thus the movement for rural credit reform had its origin in a larger movement which sought to improve agricultural conditions through the application of coöperative principles to the business of farming. But it soon became an independent issue, receiving the unqualified indorsement of the three political parties in the national conventions of 1912. The realization had suddenly dawned upon the American people that the commercial banking system on which the farmer was dependent was ill-adapted to his needs, that he lacked the financial machinery enjoyed by other classes of borrowers, and that his rate of interest was higher than the rate paid by industrial corporations, railroads, and municipalities. However unfair such a comparison may seem, it nevertheless evoked widespread complaint and created an urgent demand for the adoption of some scheme, coöperative or otherwise, that would greatly reduce the farmer's rate of interest.

The report of the United States Commission had an important bearing on the course of subsequent events. That report was confined to a consideration of rural credit. The general conclusions reached by the commission as a result of its European investigations were that the same institution could not properly supply the farmer's long-term and short-term credit requirements, that reform in the long-term facilities should come first, and that with the establishment of suitable machinery under strict federal supervision private initiative could be depended upon to reduce the farmer's rate of interest and improve the methods of making

³ See *Preliminary Report on Land and Agricultural Credit in Europe*, Sen. Doc. No. 967, 62 Cong., 3 Sess., pp. 3-7.

⁴ Sen. Doc. No. 380, 63 Cong., 2 Sess., p. 3. Italics are the author's.

loans.⁵ Although the commission recognized the "value of co-operative effort and the wisdom of permitting coöperative institutions to be organized," it found that the *landschaft* form was unsuited to the conditions and requirements of American agriculture.⁶ Furthermore, it recorded its firm conviction "that not only was government aid unnecessary, but that it would be unwise."⁷

The Moss-Fletcher bill,⁸ one of the early rural credit bills to be introduced, embodied the specific recommendations of the commission. It provided for the voluntary organization of decentralized farm-land banks under a federal charter with power to issue bonds on the collective security of farm mortgages. The minimum amount of capital required for the organization of a single bank was \$10,000, and the territory within which it could operate was limited to the area of a state. Numerous other restrictions and conditions not entirely inconsistent with the encouragement of private initiative were imposed for the purpose of making the bonds attractive to investors. It is sufficient to note, however, that the bill was generally regarded with suspicion. The charge was persistently made that it placed too much reliance on private initiative, that it was a banker's rather than a farmer's measure, that it would not only lead to unnecessary centralization in banking power but would also fail to afford the needed relief to the debtor farmer. Moreover, in the course of the extensive hearings that were held it was found that the framers of the bill were not wholly agreed as to the wisdom of its provisions; and that the Bathrick bill,⁹ which provided for direct government loans at a low rate of interest, had the stronger support of the farmers' organizations.

Accordingly, the bill was withdrawn and a more drastic measure known as the Hollis-Bulkley bill¹⁰ was drafted and introduced by

⁵ Sen. Doc. No. 380, 63 Cong., 2 Sess., p. 3.

⁶ *Ibid.*, p. 31.

⁷ *Ibid.*

⁸ H. R. 12585, 63 Cong., 2 Sess., introduced Jan. 29, 1914. S. 2909, previously introduced by Senator Fletcher, was withdrawn.

⁹ H. R. 11897, 63 Cong., 2 Sess., introduced Jan. 19, 1914.

¹⁰ H. R. 16478, 63 Cong., 2 Sess., introduced May 12, 1914. This bill formed the basis of the present law. It provided for the appointment of a farm loan commissioner by the Federal Reserve Board to supervise the organization and management of national farm loan associations. These associations could be formed under a federal charter with a capital stock of not less than \$10,000, to be subscribed, if the board of directors so authorized, after the manner

the chairmen of the subcommittees. This measure was evidently designed to meet the objections that had been urged against the Moss-Fletcher bill. It was far from being a banker's bill as it carefully removed all possibility of private gain; and the federal assistance for which it provided should have satisfied those who favored a program of government loans. But its paternalistic guise failed to win the enthusiastic support of the administration and, as Congress was busily engaged on other pressing matters, all attempts to enact a rural credit law were temporarily abandoned.

At length when the Agricultural Appropriation bill came up for consideration in the House, Representative Bulkley, in a last desperate effort to save the Hollis-Bulkley bill, proposed it as an amendment. In this attempt he was partly successful as the amendment passed the House March 1, 1915. Meanwhile, the McCumber amendment,¹¹ also proposed as a rider on the Agri-

followed by building and loan associations. When fully organized, they could make long-term loans to farmers up to 50 per cent of the value of their land and 25 per cent of the value of farm buildings at a rate of interest not exceeding the legal rate current in the state where the association was located. Borrowers were required to subscribe for stock in an association up to 5 per cent of the amount of their loans and to reside upon the land offered as security. No association could lend to a single borrower more than \$4,000, nor a larger sum than 25 per cent of its capital and surplus.

The bill authorized the Federal Reserve Board to divide the country into twelve districts, the boundaries of which corresponded so far as possible with state boundary lines, and to establish in each district a federal land bank having a capital stock of \$500,000. National farm loan associations were required to subscribe at least 10 per cent of their capital to the capital of the land bank located in their district. If their subscriptions were insufficient to provide the land banks with the required capital, the Secretary of the Treasury was authorized to subscribe for the balance.

Federal land banks were to have power to purchase first farm mortgages from the national farm loan associations within their respective districts and, under certain conditions, from institutions organized under state laws. On the security of these mortgages they could issue bonds, bearing an interest rate of 5 per cent or less, to an amount equal to twenty times their capital and surplus. The bonds were to be exempt from all taxation and were made legal investments for the funds withdrawn from postal savings depositories if the bonds could be purchased at par or below. Finally, upon the recommendation of the Federal Reserve Board, the Secretary of the Treasury might be required to purchase land bank bonds to an amount not exceeding \$50,000,000 in any one year. No less administrative authority was given to the Federal Reserve Board than that conferred by the Federal Reserve act of 1913.

¹¹ Subsequently introduced as S. 831, 64 Cong., 1 Sess.

cultural Appropriation bill, had passed the Senate February 25, 1915. This measure provided for the establishment of a bureau in the Treasury Department with power to issue bonds and to purchase farm mortgages from state and national banks so long as its bonds could be disposed of at par. No objection was made to the amendment by the supporters of the Hollis-Bulkley bill because they expected the latter to be adopted in conference.¹² But owing to a lack of time for proper consideration, the two riders were stricken out and replaced by a clause authorizing the formation of a joint committee of twelve members of the Senate and House to prepare and report to Congress on or before January 1, 1916, a bill or bills providing for the establishment of a system of rural credits adapted to American needs and conditions. This action was approved March 4, 1915, and the joint committee was immediately organized.

On January 3, 1916, the Joint Committee on Rural Credits submitted the report¹³ of its subcommittee on land-mortgage loans together with the draft of a proposed bill¹⁴ which differed but slightly from the Hollis-Bulkley bill. It was introduced two days later by Senator Hollis, was favorably reported by the Senate Committee on Banking and Currency with amendments¹⁵ February 15, and passed the Senate with scarcely any opposition May 4. The same bill somewhat changed passed the House May 15 and, as has been indicated, is now a federal law.¹⁶

II

It would be beyond the scope of the present discussion to deal with any but the fundamental provisions of the new law. As a piece of legislation it is exceedingly complicated and far more experimental than the Federal Reserve act from which its inspiration was originally drawn. That measure was intended to reform a commercial banking system already in existence, while the Fed-

¹² According to a personal letter from Senator Henry F. Hollis. See *Congressional Record*, vol. 52, pp. 5195-5196.

¹³ Printed as House Doc. No. 494, 64 Cong., 1 Sess.

¹⁴ S. 2986, known as the Hollis bill or the Federal Farm Loan bill.

¹⁵ Sen. Rep. No. 144, 64 Cong., 1 Sess.

¹⁶ So many changes were made in the Federal Farm Loan bill as amended by the Senate Committee on Banking and Currency that it will be impossible to note them in this article. Most of the important changes were made by the House. For a comparative print of the bill showing the changes made in both houses, see Sen. Doc. 444, 64 Cong., 1 Sess.

eral Farm Loan act contemplates the establishment of an indefinite number of new institutions to supplement, if not to supplant, the numerous agencies now engaged in the business of making farm loans. Moreover, in recognition of the experimental nature of any one plan of reform, and in view of the conflicting notions as to which plan should be followed, provision is made for the employment of three distinct programs so that by one means if not by another the law may succeed in accomplishing the definite purpose for which it was enacted.

In the first place, it provides for the creation of a Federal Farm Loan Bureau in the Department of the Treasury under the immediate supervision of a Federal Farm Loan Board consisting of the Secretary of the Treasury and four other members to be appointed by the President. As soon as practicable after the members of the board have been appointed, they are authorized to divide the country into twelve districts, no one of which may contain a fractional part of any state, and to establish in each district a federal land bank having a capital stock of not less than \$750,000. Shares will be issued in convenient denominations of \$5, and may be purchased by individuals, firms, corporations, and the state or federal governments. In case any part of the required capital remains unsubscribed thirty days after the opening of the subscription books, the Secretary of the Treasury is authorized to subscribe for the balance. Provision is made, however, for the gradual retirement of the stock held by the United States as soon as subscriptions from other sources are found to be adequate.

Beneath this superstructure, the law contemplates the formation of national farm loan associations. These may be formed in any federal land bank district, subject to the approval of the Federal Farm Loan Board and the land bank directors, by ten or more natural persons who are the owners or are about to become the owners of land qualified as security for mortgage loans, and who desire loans in the aggregate of not less than \$20,000. An association thus formed must invest 5 per cent of the amount of each loan in the stock of the federal land bank within its district. Its management will be in the hands of a board of five directors who together with all officers except the secretary-treasurer will serve without compensation unless the payment of salaries is approved by the Federal Farm Loan Board. Only borrowers can become members and while no limit is placed on the number of shares that one might own in his association, no more than twenty votes may be cast by a single shareholder.

After an association has received its charter from the Federal Farm Loan Board, it can make long-term loans within its district up to 50 per cent of the value of farm lands and 20 per cent of the value of improvements at a rate of interest, including commissions, not exceeding 6 per cent. Such loans may be made only for the following purposes: (1) to provide for the purchase of land for agricultural purposes; (2) to provide "equipment" and "improvements" as defined by the Federal Farm Loan Board; and (3) to liquidate mortgage indebtedness existing at the time when the first national farm loan association is organized in or for the county containing the mortgaged land. The borrower is required to subscribe for stock in his association¹⁷ up to 5 per cent of the amount of his loan, to cultivate the land offered as security, and to repay the principal in annual or semi-annual instalments. After a loan has been in force for a period of five years, additional payments of \$25 or any multiple may be made toward the extinguishment of the principal on regular instalment dates. The longest term for which a loan may run is forty years, and the size of individual loans may vary from \$100 to \$10,000.

On the security of the mortgages purchased from and indorsed by the national farm loan associations of its district, each land bank is empowered to issue an equal amount of farm loan bonds, bearing an interest rate not to exceed 5 per cent, up to twenty times its capital and surplus. These may be delivered to the farm loan associations or, at the option of the borrower, they may be sold by the land bank for his benefit. In any case he pays the rate of interest borne by the bonds plus an administrative charge which can not exceed 1 per cent of the unpaid principal of his loan. In addition, he will pay, as at present, the cost of appraising the land and perfecting the title, together with the legal fees imposed by his state for recording the mortgage, etc.

It is on the formation of national farm loan associations that the internal organization of the land banks is dependent. Until the stock subscriptions of the associations in a federal land bank district have amounted to \$100,000, the officers and directors of the district land bank are to be appointed by the Federal Farm Loan Board. Thereafter, the board of directors will consist of nine members, six of whom, known as local directors, will be chosen by and be representative of national farm loan associa-

¹⁷ Stock held by borrowers, as well as the federal land bank stock purchased by national farm loan associations, will be retired upon full payment of loans.

tions. The remaining three, known as district directors, will be appointed by the Federal Farm Loan Board to represent the public interest. No director in a federal land bank may have any official connection with any other institution engaged in the business of banking or in the negotiation of land-mortgage loans.

Some doubt was evidently in the minds of the framers of the law as to whether national farm loan associations would be immediately formed or, if formed, whether they would be sufficiently numerous to reach the great mass of borrowers. Since the land bank system is designed for and largely dependent on the formation of national farm loan associations, the failure on the part of borrowers to form the local organizations might defeat the purpose for which the land banks were established. In anticipation of this contingency the law provides that if within one year after its passage associations have not been formed in a given locality and are not likely to be formed, the Federal Farm Loan Board may in its discretion appoint banks, trust companies, mortgage companies, or savings institutions incorporated under state laws as agents through which federal land banks can make farm loans subject to the same conditions as if they were made through national farm loan associations. Such agents are empowered to negotiate mortgage loans so long as the aggregate of the unpaid principal of their outstanding loans does not exceed ten times their capital and surplus, or until the district in which they are authorized to operate is adequately served by national farm loan associations. In the meantime they will be held liable for the payment of the mortgages they have negotiated and will receive a small commission for their services.

In order to give further protection to the farm mortgage companies already in existence and to make room for private enterprise in the new system, a third possible source of land credit is contemplated. It is provided that any ten or more natural persons may form a joint-stock land bank, under a federal charter, with power to make land-mortgage loans and to issue farm loan bonds. Such banks must have a capital stock of at least \$250,000. They can make mortgage loans and issue bonds under the same conditions and restrictions as imposed on federal land banks with the following exceptions: (1) the territory within which they may operate is limited to the state where the principal office is located and to some one contiguous state; (2) loans may be made on the security of farm land for any purpose and without restriction

as to the amount to be loaned to a single borrower; (3) the borrower is not required to purchase stock or to cultivate the mortgaged land; (4) the rate of interest received on loans or paid on bonds is not subject to alteration or review by the Federal Farm Loan Board;¹⁸ (5) the bonds of joint-stock land banks can be issued only up to fifteen times their capital and surplus; (6) their bonds must be readily distinguishable from the bonds of federal land banks.

The powers conferred upon the Federal Farm Loan Board in the administration of this intricate system are almost unlimited. In addition to those already indicated, the board has the following important powers: (1) to exercise general supervisory authority over federal land banks, national farm loan associations, and joint-stock land banks; (2) to grant or refuse any specific issue of farm loan bonds; (3) to regulate the charges imposed on borrowers for appraisal, determination of title and recording; (4) to alter the rate of interest charged on loans by federal land banks so as to secure as much uniformity in rates as possible; (5) to require federal land banks to cooperate with one another in the payment of interest coupons on federal farm loan bonds; (6) to appoint land bank examiners, land bank appraisers, and a farm loan registrar for each federal land bank district and to fix their compensation; (7) to declare the mortgages on farm lands within a state to be ineligible as a basis for bond issues if after investigation it finds that the laws of that state afford insufficient protection to the holders of first mortgages.

An effort is made to give farm loan bonds a high standing as investment securities. Every series of bonds will be secured by a like amount of first mortgages¹⁹ on farm lands. In the appraisal of land there is little opportunity for collusion. Before any mortgage loan is made by a joint-stock or federal land bank it must first have the approval of local appraisers and the special appraisers of the federal land bank district. Likewise, when a land bank applies for the privilege of issuing bonds, the application must be approved by the proper farm loan registrar with whom the collateral security has been placed in trust. If, after investigation, the Federal Farm Loan Board finds the collateral unsatisfactory, it may reject the application or demand additional security.

¹⁸ See footnote 30.

¹⁹ United States bonds may be substituted.

In the case of bonds issued by federal land banks special security is offered. The bonds of any one of these banks will be secured by the capital, reserves, and earnings of all the federal land banks and by mortgages previously indorsed by agents or by national farm loan associations within its district. Every mortgage so pledged will be further secured by the double liability assumed by borrowers on their stock.²⁰ And in the event that federal land banks are unable for a time to meet all claims arising on account of the payment of interest coupons and the redemption of bonds, they may rely upon federal assistance. That is, the Secretary of the Treasury is authorized, in his discretion, to deposit government funds with federal land banks and to charge a rate of interest not exceeding the rate current on other government deposits. The aggregate of all sums so deposited may not exceed \$6,000,000 at any one time.

In other respects, the bonds of joint-stock and federal land banks will have similar security²¹ and will enjoy similar privileges. All first mortgages executed to land banks and all farm loan bonds are to be regarded as "instrumentalities of the government of the United States" and as such will be exempt from all federal, state, municipal, and local taxation. The same exemption applies to the capital, reserve, and surplus of federal land banks and national farm loan associations. Farm loan bonds will be lawful investments for all fiduciary and trust funds and may be accepted as security for all public deposits. They may also be purchased by member banks of the federal reserve system.

Finally, the law provides that the Secretary of the Treasury may designate any land bank, federal or joint-stock, as a depository of public money, except receipts from customs, and as a financial agent of the government. This feature of the law is not, like that already referred to, intended to afford relief to land banks when temporarily embarrassed because such deposits may not be invested in mortgage loans or farm loan bonds. It is

²⁰ The law is not clear as to whether those who borrow from agents of federal land banks will be held doubly liable on their stock. See sections 9 and 15.

²¹ One possible exception to this statement should be noted. While the law imposes double liability on all stockholders in joint-stock land banks, it makes no attempt to fix the same liability on shares of federal land bank stock purchased by the government or the public, presumably for the reason that these shares will be retired when the subscriptions of national farm loan associations have become sufficient to give the land banks their minimum capital.

merely a skilful manoeuver to aid in establishing the constitutionality of the law.

III

In the evolution of this intricate program the knowledge of European practice has been a confusing element. From the very beginning the merits of coöperation as exemplified in the *landschaft* system received unanimous recognition. But in view of the individualistic nature of the American farmer the successful adaptation of the coöperative form appeared to be impossible. For this reason the United States Commission favored a system of joint-stock banks, patterned somewhat after the joint-stock mortgage banks of Germany, with the provision that they be organized along coöperative lines if desirable; while others, with a less dignified enthusiasm for reform, favored the more expeditious program of direct government loans.

The present law is obviously designed to reconcile these conflicting proposals. It is founded on the strong conviction that coöperation offers not only the most desirable remedy for the problem of agricultural finance but also one that is entirely feasible if supported by federal assistance. Accordingly, liberal aid is provided and the establishment of the federal land bank system is assured. Lest this preliminary organization fail to inspire the development of a coöperative spirit and the formation of national farm loan associations, federal land banks may still be utilized to make loans through existing institutions. Finally, the law endeavors to provide new machinery for the mobilization of land credit at the hands of private initiative. This portion of the law was not contained in the Hollis-Bulkeley bill which formed the basis of the present measure. It was incorporated into the final draft of the Hollis bill as reported by the Joint Committee on Rural Credits only at the instance of those committee members who had served on the United States Commission.

Thus the Federal Farm Loan act represents a drastic attempt to solve once and for all the farmer's land credit problem. Its specific purpose is of a three-fold nature, *i.e.*, to improve current methods of granting loans, to reduce the waste growing out of excessive administrative and commission charges, and, so far as possible, to equalize interest rates on land-mortgage loans. This is by no means a small program nor can the full effects of its operation be anticipated. Nevertheless, some of the possibilities inherent in the measure are worthy of careful inspection.

In the first place, the law rightly provides for a longer term of loans and the repayment of the principal by amortization. This provision is in conformity with sound land credit principles. It will obviate a great deal of uncertainty as to the farmer's rate of interest and will literally compel the borrower to save. The privilege accorded to borrowers of repaying the principal of their loans in annual as well as semi-annual instalments is also well taken for the reason that annual payments will be more convenient for those engaged in specialized farming. There is, however, one feature of the amortization plan that does not take account of the peculiarities of the American farmer: namely, the provision that no extra payment can be made toward the extinguishment of the principal until the loan has been in force for a period of five years. While there is some justification on administrative grounds for this restriction, it will undoubtedly deter a great many borrowers from liquidating present loans or from borrowing under long-time contracts. As a class, farmers are especially optimistic. They are accustomed to loans having a maturity of five years and not infrequently they expect to extinguish the whole of their principal before the expiration of that term. Rather than forego the liberal privileges of repayment now accorded by farm mortgage and life insurance companies, some borrowers will prefer to pay a slightly higher rate of interest.

Another feature of the proposed reform which is not likely to make a strong appeal to the average farmer is the requirement that, before loans are granted by federal land banks, the borrower must subscribe for stock in a national farm loan association or, if he borrows through an appointed agent, in the federal land bank itself. Although he may arrange with the federal land bank to advance, as a part of his loan, the price of the stock subscription, the actual cost of appraisal and the determination of the title, together with the legal fees and recording fees imposed by the state in which his land is located, his power to borrow on the security of land alone is limited in any case to $47\frac{1}{2}$ per cent of its value; while his total liability, on account of the ownership of stock, may become $52\frac{1}{2}$ per cent. If the experience of one of the so-called coöperative land credit companies now attempting to make loans in this manner in the Middle West may be taken as a reliable criterion, it will require no little effort to induce intelligent farmers to purchase stock, least of all to assume double liability on their shares.

Nor is the additional provision—that the commissions paid by federal land banks to agents or national farm loan associations be deducted from dividends on land bank stock—any material improvement over the present system so far as the actual method of granting loans is concerned. It is meant of course to prevent the payment of commissions in advance. But there are numerous sources from which borrowers can obtain loans up to 50 per cent of the value of cultivable land and, if the size or term of the loan is such as to call for the payment of a large commission, the agent will accept a second mortgage on the land in lieu of cash.

In the second place, no objection can be urged against the well meant purpose of the law in so far as it is designed to reduce the cost of borrowing by reducing administrative charges and by giving greater mobility to funds seeking farm mortgage investment. The present system of land credit is highly immobile. Owing to obnoxious state legislation, backward methods of farming, and the memory of the real estate collapse of the nineties, capital is still somewhat distrustful of land-mortgage security. Middlemen are everywhere required to direct a flow of capital to agricultural channels, and the machinery which they utilize to bring borrowers and lenders into contact with one another is altogether uneconomical and obsolete. This is especially true in the southern and western states where farmers are dependent on foreign capital. In North Dakota and Oklahoma, for instance, the average rate of interest received by 126 American life insurance companies in 1914 amounted to 5.88 and 5.91 respectively.²² According to a recent estimate by the federal Department of Agriculture, the average annual commission paid by borrowers in those states amounts to 1.8 per cent.²³ Such charges add materially to the borrower's rate of interest. In the Eastern states, the commission charge is a less important element in the cost of borrowing because of the large supply of local capital.

The device to be employed in mobilizing land credit to better advantage is the farm loan bond. In principle, bonds issued on the collective security of farm mortgages are well adapted to this

²² Report of Robert Lynn Cox at the Ninth Annual Meeting of the Association of Life Insurance Presidents as quoted in *Bulletin of the Farm Mortgage Bankers Association of America* (Chicago), Jan., 1916, p. 50.

²³ Testimony of C. W. Thompson showing the average annual commission by states, *Hearings before the Subcommittee of the Joint Committee on Rural Credits*, 64 Cong., 1 Sess., p. 98.

purpose. They ought, as in European countries, to be the means of drawing capital from centers where it is now redundant to those agricultural sections where the supply of local capital is inadequate. Moreover, within a given community they should make a large quantity of capital ordinarily diverted to other channels available for agricultural purposes. The only reason why such machinery has not been utilized more extensively in recent years by farm mortgage companies is because of the popular distrust manifested toward unregulated land-mortgage bond issues. Only a few of the strong companies whose reputation for integrity and conservatism is of the highest standing have been able to sell debenture bonds. Owing to the strict federal supervision that will be given to the land bank system, the difficulties that would otherwise be encountered in marketing land-mortgage bonds should be largely overcome.

The specific mechanism intended to reduce the administrative charge will vary in its effects according to the source of credit. In all cases the yearly charge for commission, which is included in the borrower's rate of interest, is limited to 1 per cent of the unpaid principal, and other charges made to borrowers on account of appraisal and the perfection of titles will be regulated by the Federal Farm Loan Board. When loans are granted by national farm loan associations or appointed agents of federal land banks, a commission charge of not more than one half per cent may be retained by the institution making the loan. The remainder will contribute to the profits of the federal land bank and may be partly recovered by borrowers in the form of dividends on stock. The significance of this arrangement is that those who borrow through national farm loan associations will pay the lowest possible administrative cost. They will share not only in the profits of a federal land bank, in common with those who borrow from appointed agents, but also in the profits of the association to which they belong. Borrowers from joint-stock land banks will recover no portion of the administrative charge unless of course they happen to be stockholders.

Manifestly the framers of the law cherished the hope that national farm loan associations would be immediately formed; and there is good reason to believe that many such associations will be organized in those communities where religious or communal bonds already exist. Others will undoubtedly follow as soon as the success of the initial organizations has been established. But

too much should not be expected of these associations. Farmers as a class are not possessed of a coöperative spirit. They have not yet reached the stage where they will care to have their personal affairs a matter of common knowledge. Nor has their time become so valueless that they can afford to devote it gratuitously to the organization and management of associations from which others will receive an equal benefit. Under these conditions it is not likely that the greater economies offered by the national farm loan association will be sufficiently attractive to *good* farmers to induce a majority of them to organize. Certainly, those who live in the newer sections of the country will prefer to borrow from agents of federal land banks or from institutions conducted solely for profit.

The position that joint-stock land banks will occupy in the new system is also a matter of some uncertainty. If formed, they should prove to be attractive sources of credit to those who prefer to deal with private institutions. Borrowers would not be obliged to purchase stock, to cultivate their mortgaged land, or to expend their loans for specific purposes. Nor would there be any restriction on the amount that might be loaned to a single individual. But in other respects, the law imposes such onerous restrictions on the powers of these banks as to discourage their formation. Why, for instance, should they not be allowed to operate in more than two states if they can do so with profit? It is a basic principle with those institutions that are noted for their conservatism in making farm loans to operate over an extended territory. The Pearsons-Taft Land Credit Company of Chicago has loans outstanding in sixteen states.²⁴ The Union Central Life Insurance Company of Cincinnati has gradually extended its farm loan territory until it now operates in thirty-four states.²⁵ Considerations of safety demand widespread investments. Similar considerations would demand that an institution having the power to issue farm loan bonds be allowed to make land-mortgage loans in several states. It is obvious, therefore, that the rigid limitation on the investment field of joint-stock land banks will not only detract from the security of their bonds but it may also prevent the large farm mortgage companies now operating over a wide territory from reorganizing under a federal charter.

²⁴ Testimony of M. J. Badow, *Joint Hearings before the Subcommittees of the Committees on Banking and Currency*, 63 Cong., 2 Sess., p. 587.

²⁵ *Annual Report*, Dec. 31, 1915, p. 5.

Another discomfoting feature that will be prejudicial to the reorganization of farm mortgage companies is the requirement that loans made by joint-stock land banks must be approved by the Federal Farm Loan Board before they can be pledged as security for farm loan bonds. In practice this restriction could have but one effect: namely, that as a matter of prudence joint-stock banks would not make loans until they had first been approved by the federal authorities. And in the meantime borrowers might seek the prompt service accorded by other agencies.

It is extremely unfortunate, if private enterprise is to play a prominent role in the new system, that more leniency was not shown toward the joint-stock land banks. In other countries they have been found to be well adapted to the mobilization of land credit, and, although their earnings are not excessive,²⁶ capable of operating profitably in competition with coöperative and state aided ventures. These facts seem to have been appreciated only in part by the members of the Joint Committee on Rural Credits. For with a view to *equalizing* the profits that might be made by federal and joint-stock land banks they limited the bond issuing power of joint-stock banks to fifteen times their capital and surplus.²⁷ This action was in virtual recognition of the superior efficiency of private enterprise when given an equal opportunity. It is inconceivable why the opportunity should have been withheld.

A third purpose of the law is to mobilize land credit so effectually that interest rates on mortgage loans will be equalized. At present there is considerable variation in the farm-mortgage rate from one section of the country to another. Taking into account the average annual commission charge, which seldom amounts to more than 1 per cent, the farmer's rate of interest on mortgage loans is lowest in the New England and Middle Atlantic states varying from 5 to 6 per cent. In that portion of the North Central division which lies east of the 98th meridian, the rate varies from 6 to slightly over 7 per cent. Westward from this meridian the rate rises to 10 per cent, and then falls to approximately 8 per cent on the Pacific Coast. To the South of Penn-

²⁶ The most prominent institution of this kind in Germany is the Prussian Central Land Credit Joint Stock Company. The average dividend paid on share capital from the time of its formation in 1870 to 1913 was 9.3 per cent. *Cahill Report*, printed as Sen. Doc. No. 17, 63 Cong., 1 Sess., p. 74.

²⁷ See *Report of the Joint Committee on Rural Credits*, House Doc. No. 494, 64 Cong., 1 Sess., p. 14.

sylvania and the Ohio River, the rate gradually rises from 6 per cent in Maryland and 7 per cent in Kentucky to about 9 per cent in the Gulf States.²⁸

The equalization of these various rates is expected to be a simple matter. Farm loan bonds will be well secured. Those issued by federal land banks will offer a number of attractive features not possessed by European land-mortgage bonds. To make certain that approximate uniformity in interest rates will be realized, the law fixes the maximum rate to be paid on bonds at 5 per cent and the highest rate, including commissions, to be paid by farmers at 6 per cent. As a precautionary provision, however, the limitation on interest rates is worse than useless. Either the rate paid by farmers in the South and West will be reduced to conform to the legal maximum or investors will be unwilling to purchase the bonds of land banks operating in those sections. In view of the abundant security offered by the bonds of federal land banks, the latter possibility seems doubtful.

The successful operation of the law, then, will result in the equalization of farm-mortgage rates. Farmers in the South and West with inferior security²⁹ will be able to borrow on as favorable terms as the farmers who live in the older agricultural sections. The demand for a material reduction in the current rate of interest will have been fully met. But in responding to this ubiquitous demand, there appears to have been no justification for drastic action. While it is true that the farmer's rate of interest is higher than the rate paid by *some* industrial and commercial corporations, the vendors of such comparisons forget that farming as a business is highly individualistic and is likely to remain so. If the farmer's rate of interest is excessive it is not because it is higher than the rate paid by corporate enterprises

²⁸ For average rates of interest and commissions by states, see testimony of C. W. Thompson, *Hearings before the Subcommittee of the Joint Committee on Rural Credits*, 64 Cong., 1 Sess., p. 98.

²⁹ Some would insist that their security is not inferior on the ground that the land is actually better in many cases than land in Iowa, Illinois, and Southern Wisconsin. But this point of view fails to take any account of the purpose for which land is used. Crops are the sustaining element in farm loans. Where one-crop systems are in vogue, land is highly speculative in value even though it is regularly cultivated. Until a more diversified culture has become prevalent in the South and West, farm lands in those sections will be inferior as security for mortgage loans no matter what system of land credit is adopted.

or by European farmers but because it is so much higher than the rate received by the ultimate lender. The difference represents the cost of mobilizing land credit under a wasteful and badly organized system. A more economical organization, rather than an approximate equalization of rates, should have been the goal of remedial legislation.

Serious consequences may follow if the set purpose of the law is fully realized. A material reduction in the current rate of interest, unaccompanied by careful restrictions on borrowing power, is opposed to the welfare of the tenant farmer who aspires to land ownership. The potential effect of lower rates is to promote the spirit of land speculation, raise the value of land and only further the movement toward concentration of ownership. These conditions, in turn, invariably breed farm tenancy and absentee landlordism. It is unfortunate that the present law takes so little account of such contingencies. It contains no definite restriction that will effectively prevent land speculation. Although the borrowers who depend upon the federal land bank system are required to engage in the cultivation of their mortgaged land and to expend their loans only for the most specific purposes, residence on the land is not made a condition of borrowing. Moreover, the maximum loan that can be granted to a single borrower seems much too large. It should at least have been limited to the amount necessary for the acquisition of a farm of profitable size—a farm that could be cultivated in a profitable manner by one operator. Finally, it should be remembered that not one of these restrictions is imposed on those who borrow from joint-stock land banks.

Perhaps a great deal will depend upon the course that is followed by the Federal Farm Loan Board in the interpretation of its powers, as to whether or not the land bank system will prove positively harmful. The law is ambiguous and indefinite on a number of points. It is not clear, for instance, whether the board has the power to regulate the rate of interest paid on farm loan bonds.³⁰ But it does have power to refuse to authorize any

³⁰ Section 16 provides that "joint stock land banks shall not be subject to the provisions of subsection (b) of section seventeen of this Act as to interest rates on mortgage loans or farm loan bonds." The subsection referred to gives the Federal Farm Loan Board power "to review and alter at its discretion the rate of interest to be charged by Federal land banks for loans made by (*italics are the author's*) them under the provisions of this Act, said

specific issue and it might exercise that power tacitly on the ground that the rate borne by the bonds was too high or that the underlying mortgages represented loans made for speculative purposes. If, therefore, the board places a liberal construction on its powers and, in coöperation with the land bank directors, rejects a large percentage of the applications for loans—as is the practice in New Zealand and Australia where systems of state loans are in force—the spirit of land speculation might be kept within present bounds. But the small borrower is the one who would suffer most from this policy because he is not usually possessed of unquestionable security. In either case the system would play into the hands of those landowners who are already prosperous.

On the whole, the law is a badly disguised attempt to establish a system of government loans, under the cloak of coöperation, where government loans are not needed. It is essentially a landowner's measure and one that will prove to be cumbersome and needlessly expensive in its operation. Federal land bank stock owned by the government will not share in dividend distributions; members of the Federal Farm Loan Board will receive an annual salary of \$10,000 together with all necessary traveling expenses; the salaries of the twelve farm loan registrars, the numerous land bank examiners, the attorneys, experts, assistants, clerks, laborers and other employees required to conduct the business of the board will likewise be paid by the taxpayers. For the sake of simplicity and economy the problem of supplying landowners with adequate land credit facilities should have been left entirely to private initiative, subject in some measure to the same administrative authority that now supervises the national banking system. Or if a system

rates to be uniform so far as practicable." Nothing is contained in this subsection relative to the interest rate on bonds of federal land banks. But subsection (f) of the same section gives the board power "to prescribe the form and terms of farm loan bonds"; and section 20, dealing with the form of farm loan bonds, says "they shall have interest coupons attached, payable semi-annually, and shall be issued in series of not less than \$50,000, the amount and terms to be fixed by the Federal Farm Loan Board." If by "terms" is meant the rate of interest, the law is contradictory. Such an interpretation would give the Federal Farm Loan Board power to regulate the rate of interest on bonds of joint-stock land banks, and section 16 would flatly deny that power. If the word "terms" is not meant to include the rate of interest, then a portion of section 16 is meaningless as it attempts to exempt joint-stock land banks from restrictions that are not imposed.

of government loans was regarded as the only *desirable* solution of the land credit problem, the so-called McCumber amendment which passed the Senate in February, 1915, might well have received more serious consideration. Although defective both in principle and purpose, it at least offered a plan having the combined merits of simplicity, economy, and certainty. It would have utilized to better advantage the institutions already in existence and, if found to be ill-adapted or grossly defective, could easily have been abandoned.

After all, there was no necessity for any kind of federal legislation affecting the land credit problem of landowners. That problem is of a comparatively simple nature and rightly belonged within the province of state legislation. There is, however, the more pressing problem of land credit with which the federal government should have been deeply concerned: namely, the problem of making the conditions of country life more attractive to the *younger* generation of farmers. In accomplishing this end some form of land purchase legislation is needed. In the long run no other course of action seems capable of checking the growth of tenancy and the depopulation of rural communities. Doubtless the framers of the present law were sincere in the belief that by applying one remedy to a two-fold problem these tendencies would be stayed. But in reality they seem only to have given a subsidy to present landowners, a subsidy that may aggravate rather than mitigate the problem of tenancy. It will now remain for the states to attack this important problem, as they have attacked others, by applying unlike remedies to a common ill when uniform treatment should be administered.

GEORGE E. PUTNAM.

University of Kansas.

TAX EXEMPTION THROUGH TAX CAPITALIZATION A REPLY

In the June number of the *AMERICAN ECONOMIC REVIEW* Professor T. S. Adams has published an article which is, in some respects, a model of scientific discussion. It endeavors, indeed, to deliver some hard blows; but its tone is so courteous and so friendly that it would be impossible to import any personal note into the controversy. This is as it should be. Scientific discussions, unfortunately, are not infrequently beclouded by mere personalities; and when one is incensed, one can not reason with serenity. What we all desire to attain is scientific truth; but the truth is independent of the personality of the one who expresses it.

While, therefore, appreciating to the full the entirely correct, and even generous, tone of the article, and while reciprocating all the kindly personal references, I can not refrain from expressing my conviction that the article in question has failed to substantiate its point. Far from tax exemption through tax capitalization being a fiscal fallacy I think that it can be shown that it is a fiscal truth. And I think, furthermore, that it can be shown that Professor Adams has written without the careful deliberation which the subject demands.

As a preliminary to the discussion, however, I must sound a personal note. Professor Adams' chief purpose is, evidently, to oppose the single tax doctrine by demolishing one of its assumed supports. Professor Adams is a vigorous opponent of the single tax; but, it may be stated, so am I. From my first public debate with Henry George in 1892, I have uniformly opposed the single tax. What was my astonishment, therefore, to be pilloried in the same stocks with so prominent an exponent of the single tax as Mr. Fillebrown. To the undiscerning reader I am put in the same category with the advocates of a project which I have from the very first consistently opposed. And even in the eyes of those who know my real views I am saddled with the sins of the single tax by the charge that in one, at least, of their fundamental points they are applying a theory for which I am responsible. It gives one a strange feeling to be told that he is not what he seems, or what he has thought himself, to be; and that in reality he belongs, scientifically, in the camp of his life-

long opponents. Were this charge true, it would be serious. But, fortunately, it can be shown to be devoid of foundation. So much for the personal side of the matter.

Professor Adams' article may be divided into three parts. First comes the attempted proof of the unsoundness of the general theory, as exemplified in the case of securities. This is followed, secondly, by the contention that the tax-exemption theory applies to land in particular just as little as it applies to anything else. And in the third place comes the argument as to the diffusion of the unearned increment. This third part has logically nothing in common with the first two parts. It is added by Professor Adams in his endeavor to nail another spike into the coffin of the single tax.

For purposes of convenience we shall take up first the application of the capitalization theory to land. I am in thorough agreement with Professor Adams as to the inapplicability of the doctrine to land. But I differ with Professor Adams as to the reasons advanced by him. In other words, I disagree with the single taxers, not on the ground that the capitalization theory is unsound, but solely on the ground that the application which they make of the capitalization theory is illegitimate. It does not follow that, because a conclusion is unsound, the major premise must be false. In his desire to prove the error of the single-tax conclusion Professor Adams has attacked the major premise, which is true, and has left unnoticed the minor premise, which is false. According to his view, the single taxers have made a legitimate use of an incorrect theory; according to my view, they have made an illegitimate use of a correct theory.

All this was explained many years ago. The entire subject of the so-called rent-charge (or, as the French call it, the fixity or the immutability) theory of the land tax was set forth over two decades ago,¹ in a chapter calling attention to "the real weakness of their arguments." To show the error of the single tax in this respect would thus be, from a scientific point of view, to whip a dead horse. The scholars who have given the most effective refutation of the rent-charge theory of the land tax are precisely the ones who have done the best work in developing the general theory of capitalization.

Although it is thus an old story, it may be worth while,

¹ *The Shifting and Incidence of Taxation* (3d ed., 1910), pp. 174-183 and 221-226.

nevertheless, to recapitulate the reasons why the capitalization theory can not be legitimately used as the advocates of the rent-charge theory of land taxation attempt to do.

In the first place a necessary condition of the capitalization theory is the exclusiveness of the tax. The tax on land is everywhere only a part of the system of taxation. In the United States it is a part of the general property tax. To the extent, therefore, that there are other taxes, the land tax can not be considered an exclusive tax and the foundation of the theory disappears.

In the second place, assuming that the land tax were, in reality, what the single taxers would like it to be—a single or exclusive tax—the particular conclusions drawn by the single taxers would still not follow. Professor Adams refers in his article (pp. 274-275) to the dissenting opinion of the minority of the Mayor's Committee on Taxation in which it is claimed that no direct answer is made in the majority report to the rent-charge or capitalization theory. No secret, I trust, is being disclosed by the statement that the majority report was drafted by me and that the only reason why no reply was made to the rent-charge theory was that it was scarcely mentioned in any of the arguments advanced. There was, I think, an incidental reference to it in one of the briefs; but it was not urged in the oral hearings and was considered so insignificant that it was not discussed at all in the meetings of the committee. It was, therefore, deemed undeserving of mention in the majority report.

In order, however, to dispose of the matter, I may add that in the passage quoted from the minority report, the whole subject is thrown into confusion by the use of the words "the present owners of land" in the last sentence. The essence of the capitalization theory of incidence is the distinction between the original owners and the new purchasers; it being entirely true, as will be seen below, that, in so far as the conditions of the theory permit, new purchasers of land, for that matter like new purchases of anything else under similar conditions, do buy themselves free of tax. It is, however, incorrect to assert that all "present owners" are free from existing taxes on the ground that they have bought themselves free. Many, or even most, of the "present owners" may not have bought themselves free at all, simply for the reason that they owned the land before the present burdens were imposed or increased. To confuse all present landowners with tax-free holders of land is the real weakness in the argument.

It is thus the fallacious minor premise, and not, as Professor Adams supposes, the major premise, which invalidates the conclusion. If the single tax were really in fact, as well as in name, a single tax, that is, if nothing else but land values were taxed in the entire country; if, in the second place, due notice were given in advance of the exact and permanent rate of this single tax; and, most important of all, if the tax were thereafter applied exclusively to those individuals who subsequently bought land, then, and then only, would the conclusion of the single taxers be justified as to burdenless taxation. It is precisely because these conditions were lacking, that the proposal of the single taxers aroused such opposition in New York. Their scheme practically meant not burdenless taxation, but extremely burdensome taxation to the mass of existing landholders who were not, for the most part, new purchasers. And it was for that reason defeated.

It is plain, therefore, that whether or not the general theory of capitalization is true, the attempted application of the theory to land is unwarranted. We have shown that the minor premise of the argument is false. If, now, we can show that the major premise is sound, the entire contention of Professor Adams will be disproved, and his conclusion as to the land tax—sound though it be—will be shown to rest upon a false reasoning. According to him, the conclusion of the single taxers is fallacious because the general theory is erroneous; according to the argument just adduced the conclusion of the single taxers is fallacious because the minor premise is erroneous. If, now, we can show that the general theory, or major premise, is correct, Professor Adams will be convicted of a double mistake; namely, of opposing a correct major premise and of upholding an erroneous minor premise. To Professor Adams I seem at fault for advancing an untenable general theory while the single taxers have been "inexorable in their logical processes" (p. 276). I trust that it has at least been shown that the single taxers are the opposite of "inexorable in their logical processes." It now remains to defend the general proposition.

II

Professor Adams discusses the capitalization or amortization theory of incidence under the head of "tax exemption through tax capitalization"; and treats of the general theory in con-

nection with its application to corporate securities. Here he inadvertently gives an erroneous statement of my practical conclusions. He states (p. 272) as my conclusion: "that where a corporation tax is exclusive it would be legitimate to levy another tax on new purchasers of stock." This implies that what was advocated was a special tax on the corporation and another special tax on the shareholders. What was really under discussion, however, was the legitimacy of a general income or a general property tax in cases where a special corporation tax already exists—which is a very different matter. The statement was² that since the purchaser buys himself free of tax "an additional tax on the new shareholder, in common *with all other recipients of income*, would thus really constitute no injustice to him." But even then the qualification was added that "the practical difficulty would, of course, consist in distinguishing between old and new owners." It is precisely the failure to call attention to this consideration that constitutes the weakness of the single-tax argument; and I must protest, in all deference, against being made responsible for a conclusion against which I had particularly sought to guard myself. The actual generalizations which I do urge are of a different kind.

It is the same failure to observe distinctions which leads Professor Adams to make me responsible for what he calls (p. 276) "the immoral doctrine" of the single taxers, that a new tax should be heaped upon a new tax until the whole value of the property is gone. He does, indeed, say that I "apparently reject such conclusions"; but he intimates that this is so because I am not relentless in my logic. And on the next page (p. 277) he refers to "the radical conclusions of those writers who would indefinitely increase the rate of taxation upon land and securities." To my knowledge there is no writer who has ever advocated an "indefinite increase" of the rate of taxation upon securities; and the attempt to make me, by inference, responsible for any such doctrine rests, as we shall see in a moment, upon an inability to distinguish between exclusive and inclusive taxes.

This brings us to the core of the argument: namely, the alleged unsoundness of the theory of tax exemption through tax capitalization. This is characterized as "a doubtful doctrinal tool." The entire attempt at refutation is, however, contained in a few lines on pages 273 and 278.

² *Essays in Taxation* (8th ed.), p. 309.

Let us take up first the subject of exclusive taxation. Objection is made to my statement as to the inclusiveness or exclusiveness of the old tax and the contention is advanced (p. 273) that "it is the exclusiveness or the inclusiveness of the new tax rather than the old tax which counts." Let us see.

There are two possible cases which are of interest to us here. Let it be assumed that a special or exclusive tax on some form of property, whether corporate or land, already exists. Let us further assume that in one case the government imposes a new general tax on everything, including corporations and land; or, secondly, that on the other hand it imposes a new special or exclusive tax on corporate securities or land.

Let us take up first the case of the new general tax, which is discussed by Professor Adams at the top of page 273. He maintains that under these conditions the tax will be legitimate, because it is general. For everybody has to assume a new and heavier burden, so we are told, and it will be legitimate "to place this burden on stockholders, particularly new purchasers, who are paying through a corporation the exclusive tax." Is this true? There are two points involved here. Why does Professor Adams speak of "stockholders, particularly new purchasers"? Why, if the theory of capitalization is, as he contends, untrue, does he make any distinction between new purchasers and other stockholders? If the test is simply the generality of the *new* tax, what is the ground for such a distinction, and why should the new purchasers be singled out as being "particularly" amenable to the new tax? As soon as Professor Adams draws a line, as he does here between new purchasers and other stockholders, he virtually abandons his contention. The new purchasers can be singled out "particularly" only if the capitalization process is assumed; and if the capitalization process is true of a new tax, why is it not true of an old tax?

But, in the second place, and entirely apart from the "particularly new purchasers," is it true that a new general tax is always legitimate? Does not the question of the legitimacy of a new general tax depend in part upon the truth of the capitalization theory as applied to the old tax? And is it not a fact that in practical fiscal programs this is the consideration which often weighs most heavily with the legislator? In Italy, for instance, when a new general income tax was imposed, land was expressly exempted from the operation of the law, on the ground

that it was already subject to a special land tax. The same argument was advanced recently in New York during the discussion of the suggested income tax, one of the leading financiers maintaining that any attempt to include income from land in the general income tax was unwarranted because of the fact that land was already subject to what was practically an exclusive or special property tax. On the other hand, this practice has not been followed in many leading countries, including our own, which impose a general income tax. Why did the Italian statesmen consider a new general income tax illegitimate, and why did the American statesmen consider a new general income tax legitimate?

The answer is plain. It depends upon the theory of capitalization as applied to the old tax. If the theory of tax capitalization is untrue, then the new tax, no matter how general it may be, is illegitimate. For if all landholders, for instance, are already subject to an exclusive tax, and if they really bear the burden of that tax, it would be plainly imposing upon them a double taxation to include them in the new general tax. I do not, of course, mean to say that it may not be desirable to tax land at a higher rate than other property; but I do mean to say that if the object of the statesman is to achieve, as far as possible, equality in taxation by taxing all classes and all incomes alike, then it is illegitimate to levy a new general tax on all property or income in the presence of an existing exclusive tax on some form of property or income. What is needed in such a case is not a new general tax, but a partial or exclusive tax designed to redress the inequality of the old exclusive tax.

But if, on the other hand, the theory of tax capitalization is true, then the new general tax is legitimate. For if the old tax is an exclusive tax and if the theory of capitalization is true, new purchasers of the property would buy themselves free of tax. If the old tax has been in existence for some time, it is likely that most of the property will be in the hands of the new purchasers. It has been estimated, for instance, that in the American cities land on the average changes hands every twenty years; and in the case of securities the period is apt to be much shorter. But if the theory of capitalization is true and if the new purchaser has practically bought himself free of tax, there is no objection to levying a new general tax, because the new tax will hit the new purchasers of that particular property, like the

owners of all other property, only once. There will still, of course, be a remnant of original owners who will suffer. But the longer the old tax has been in existence, the less weighty will be the objection.

We see, therefore, that under the conditions mentioned by Professor Adams, namely the imposition of a new general tax on top of an existing exclusive tax, the new tax will be legitimate if the theory of tax capitalization is true, and that it will be illegitimate if the theory of tax capitalization is untrue. The legitimacy, therefore, of the new general tax depends not on the character of the new tax, but on the application of the theory of capitalization to the old tax.

This is, however, only one half of the argument. For let us suppose that the new tax is not a general income or a general property tax but a special or exclusive tax. According to our critic this new exclusive tax is always illegitimate. He tells us (p. 273): "generally speaking, the new tax will be legitimate or not according as it is general or not." This conclusion, it may be stated with all due deference, is just as unsound as the previous one. If the theory of tax capitalization is untrue, of course the new tax would be illegitimate, for this would be heaping Pelion on Ossa, and would simply be intensifying an inequality which already exists. But if the theory of tax capitalization is true, the new exclusive tax will be as legitimate as any exclusive tax can be. The reason why an exclusive or special tax is imposed is that the property or the income taxed is presumed to possess qualities which properly single it out for special taxation, as, for instance, a special tax on monopolistic public service corporations. Whether this new tax may properly be imposed in the face of an already existing tax on such corporations depends largely on the question as to whether the existing exclusive tax is really a burden on the corporation or its shareholders, or to what extent the existing shareholders have bought themselves free from tax; that is, have made allowance for the existing tax in the market price which they have paid for their shares. Thus it does not follow, as Professor Adams thinks, that a new special tax must always be illegitimate. If that were true, he would be indicting a large part of the program of state tax reform, of which he is so eminent a representative; for in many states the general property tax is being split up into a series of special taxes.

It seems, therefore, that Professor Adams' contention has

been disproved. I do not, of course, deny that the legitimacy of a new tax may depend upon the characteristics of the new tax. But what I do maintain is the fallacy of the contention that in the presence of existing taxes the character of the old tax has nothing to do with the legitimacy of the new tax. That is the real point at issue. Under the conditions assumed by Professor Adams, namely the existence of an exclusive tax, we have shown that a new general tax may be sound or unsound (and not always sound, as he says); and, on the other hand, that a new special or exclusive tax may also be sound or unsound (and not always unsound, as he says); and we have likewise shown that the criterion (not, of course, the only criterion) of the legitimacy of the new tax is not whether the *new* tax is general or exclusive, but whether the theory of tax capitalization does or does not apply to the *old* tax. If the old tax is a general tax, the theory of capitalization, of course, can not apply, and the new tax, whether general or exclusive, must stand on its own merits. But if the old tax is an exclusive tax, then the legitimacy of the new tax depends, in part at least, on whether the theory of tax capitalization does or does not apply. The real test, therefore, is the exclusiveness or inclusiveness of the old tax and not that of the new tax. I submit that what Professor Adams calls the "impossibly difficult" (p. 278) distinction between exclusive and inclusive taxes is a very simple one indeed, if attention be centered on what is the real point of the controversy. And I further submit that what is calculated to "make mischief" (as Professor Adams asserts) is not the well-recognized distinction between exclusive and inclusive taxes; but the confusion of thought in failing to distinguish between new and old taxes.

III

All this, however, is really preliminary to the main argument. So far as we find any definite theory in the article under review, the chief thesis seems to be that one can not, through the process of capitalization, buy himself free from a tax. It is asserted (p. 271) that new purchasers who are reputed to go tax free "do not, in a genuine or practical sense, accomplish any such impossible result."

This thesis is supported by two contentions:

1. That the person pays the tax through the lowered interest

rate which he is compelled to accept as a result of the tax (p. 278).

2. That the person pays the tax through an increase in the price of consumable goods (p. 277).

Incidentally remarked, these two phenomena seem to be opposed to each other. Assuming, however, for the sake of argument, that what is meant is that the first result will ensue in some cases and the second in others, it still remains true that no argument is adduced to show how the new purchaser is supposed to pay the average rate. The entire subject is disposed of in a few lines, with an undue brevity. Let us scrutinize the statement a little more closely.

In the first place, Professor Adams seems to commit himself definitely to the position that through an effect upon interest rates every one pays taxes, and does so at the same rate. "When a man buys durable property, he capitalizes its net value or income at a rate which is lower when the general tax burden is high, and higher when the general tax burden is low" (p. 278). The only argument in support of this contention, however, is the statement that "it [the rate of capitalization] registers automatically the average tax burden." This obviously means that taxes on capital are diffused among all owners of capital through a decrease in the general rate of interest. This is indeed a new proposition, and it would be important if true. But is it true? Is the rate of interest affected by taxation? Does the general taxation of all industries or the special taxation of any one industry reduce interest rates so that all owners of capital bear the burden? The mere claim by Professor Adams to this effect does not suffice. It is certainly something not to be found in any of the books; and Professor Adams owes it to his readers to prove the point.

In the absence of any such proof, let us attempt an analysis ourselves. Suppose, for example, that a special tax is imposed on the securities of the Steel Corporation. What will be its effect upon interest rates?

New investors in steel securities will, of course, demand the current return on their investment; *i.e.*, they will demand the current rate of interest above the tax. The problem now is: Is this current rate of interest affected by the tax?

There are here two possibilities: the tax may be shifted to the consumer or it may be borne by the producer. Professor Adams (p. 277) says that "any unusual burden is borne by the

consumer." This is, be it said in passing, inaccurate; as under certain conditions, for instance those of monopoly, the tax will not be shifted to the consumer. But suppose, for the sake of argument, that the tax is shifted to the consumer. What will be the effect upon interest rates?

It is of course true that if the tax is shifted, the price of the steel products will advance. This may, under certain conditions, lead to a smaller demand and thus to a reduced output. A reduced output again may tend to lessen the rate of interest because of the diminished demand for the capital invested in production.

Let us, however, look at the reverse side of the argument. If prices of steel products advance, the funds available for saving will manifestly be diminished. But this obviously means a reduction in the supply of capital and this reduction in the supply of capital again will clearly be likely to increase the interest rate.

It is manifest, then, that the two above forces tend to counteract each other. Therefore, if the tax is shifted, the effect upon the interest rate is entirely problematical. The rate of interest may remain unchanged; it may move up a little, if one set of forces is stronger; or it may move down a little, if the other set predominates. What justification then is there for the claim that the interest rate "automatically registers the tax burden"?

Suppose, on the other hand, that the tax imposed on the corporate securities is not shifted to the consumer. As has been pointed out elsewhere,³ this not infrequently happens. Suppose, in other words, that the producer should decide not to increase the price of the commodity. Everything would then depend upon the fact as to whether he would reduce the output. Under certain conditions of monopoly production, the sole effect of the tax would be to diminish the high profits of the producer. It is only when these profits are reduced to a point where the producer will prefer to diminish his output that there would be, theoretically, a lessened opportunity for the investment of capital. And it is only in this exceptional case, and to this very slight extent, that we could talk at all of a tendency toward lower interest rates.

It must not be forgotten, however, that a great part of a country's capital is invested in land. When Professor Adams speaks of how "any unusual burden is borne by the consumer" he forgets all about the case of land. Does he seriously desire

³ *The Shifting and Incidence of Taxation* (3d ed., 1910), pp. 338-366.

to take the position that the imposition of a tax on land or on land values will affect interest rates? Does he mean to say that all taxes on the selling value of land are shifted to the consumer? But if a tax on land is often not shifted, and if so large a part of a country's capital is invested in land, what becomes of the "automatic registration theory"?

Summing up this entire argument, we see that it is, indeed, true that the imposition of a tax on capital may, in some cases, have a depressing effect upon the rate of interest. This point has, indeed, not been adequately emphasized before, and Professor Adams deserves credit for calling attention to it. But we must be careful not to overemphasize the point. As we have just shown, the tendency of taxation to depress interest rates is, in the first place, exceptional; it is, in the second place, often counteracted or actually outweighed by the opposite tendency; and, in the third place, even in the rare cases where it exists, it is so slight as to be negligible. But at all events, and beyond the peradventure of doubt, there is no basis for the statement that taxes are automatically registered in the interest rate.

With the disproof of this theory, the entire structure erected by our critic collapses. In point of fact, when we come to consider the few lines of argument more closely, we find that he really shares the very theory which he opposes; and that the failure to recognize this fact is due to his reluctance to accept the existence of a "taxless field" to which investors can repair. This is closely connected with his failure, mentioned above, to grasp the conception of an exclusive tax.

The capitalization theory or, as I have called it in my book more properly, the amortization or absorption theory, is nothing but an extension of the ordinary theory of value and wealth. Capital is capitalized income. When a man buys a piece of durable property he pays for it an amount equal to the capitalization of the estimated recurrent annual income. Therefore, as a permanent tax is one of the items of outgo which must be deducted from the gross receipts in order to reach the real income, the capitalization theory of taxation is simply an application of the capitalization theory of wealth. Nothing that Professor Adams urges is opposed to the incontrovertible fact that when a man buys a bond or piece of land or any other class of capital subject to a fixed and recurrent tax, he makes allowance for the tax in the purchase price. That is all there is to the theory

of tax exemption through tax capitalization. Professor Adams states this himself when he says (p. 273) that "at any given time purchasers of taxed property stand on the same footing as purchasers of exempted property." How can the purchaser of taxed property (*i.e.*, with his property subject to taxation) stand on the same footing as the purchaser of exempted property (*i.e.*, of property not subject to taxation), unless the purchaser of the taxed property does not feel the burden of the tax. How can the man who is not taxed "stand on the same footing" as the man who is taxed, unless the tax on the latter is only an apparent, and not a real, tax? When Professor Adams says (p. 273) that "there is no exemption through capitalization, but only equalization of the burden through competition" he is asserting something which, with all due deference, I must characterize as unsound. For the one thing means to me precisely what the other does. Capitalization in general economic life is brought about only through an equalization in the rate of return. Capitalization is equalization; equalization is capitalization. When Professor Adams objects to the one and not to the other, he is tilting against a windmill. In order to refute the exemption-through-capitalization theory, he will have to refute the entire modern doctrine of capitalization as capitalized income. And this, I venture to assert, is a rather large order.

On page 278 Professor Adams virtually gives away his entire argument. He states that the subsequent purchaser, who according to Professor Adams' view does not buy free of tax, "buys free from any excess of tax over the average rate." But this is precisely what I say. Substitute the words "taxless field" for the words "average rate" and we have a statement of the capitalization theory. To be entirely exact, indeed, it may be well to speak of "freedom from the excess over the usual burden." But it is far simpler, and really not susceptible of misconstruction, to speak of the taxless field, and to ignore the various obscure, insignificant, indirect, and wholly negligible effects of taxation upon interest rates. When Professor Adams says that the new purchaser pays the average rate of taxation and that he bears no special burden and reaps no special benefits, he asserts precisely what the capitalization theory maintains. When a new purchaser is said to buy himself free from taxation, what is meant is that he buys himself free from any exclusive tax, or any excess of tax above the average rate. If a special tax is imposed

upon any particular class of securities or corporations over and above the general rate of taxation, the capitalization theory shows that the new purchaser buys himself free of this special tax and pays only what the investors in other classes of corporations pay. And, again, if a new purchaser is exempt from a general tax, as, for instance, if he buys a tax-free bond under our federal income-tax law, the capitalization theory shows how the new purchaser amortizes the exemption by paying more for the bond; and that, therefore, he really is not exempt, but pays in substance the same rate as other income-tax payers. In reality, therefore, Professor Adams accepts the conclusions of the capitalization theory. He erroneously thinks that he has demolished the theory, whereas all that he has done has been to advance an untenable doctrine of the relation between taxation and the rate of interest.

Everything that is true in Professor Adams' conclusions has previously been stated by others. When he contends that no investor in capital can pay more than the average rate of taxation he says, virtually, that inequalities in the taxation of durable property are wiped out. This is, however, what every upholder of the capitalization theory says. The only difference between us is that in my view the inequality is wiped out by the process of capitalization, which is an application of a generally accepted economic theory; while in Professor Adams' view the inequality is wiped out by a change in interest rates, which as we have shown is by no means necessarily true. As has been elsewhere stated,⁴ inequality of taxation is the corner-stone of capitalization. The longer the reader reflects on this, the less will he agree, let us hope, with our critic as to the "impossibly difficult" conception of an exclusive or unequal tax.

It may not be amiss to point out some of the practical consequences of the theory at issue. A few years ago, when the sixteenth amendment was being discussed, the present writer made a rather extended investigation into the subject of tax-free bonds, the results of which were published in part.⁵ All this had to deal with the every-day practical aspect of the taxless field, which our critic is so loath to recognize. In the recent discussion at Washington as to the desirability of substituting information-at-source for collection-at-source in the income tax, quite a

⁴ *The Shifting and Incidence of Taxation* (3d ed.), p. 223.

⁵ *The Income Tax* (2d ed., 1914), pp. 605-613.

number of briefs were filed by the contending parties which took for granted, as a part of ordinary financial practice, the truth of the tax-exemption-through-capitalization theory. Thus in one of the briefs⁶ the writer, after quoting a statement on the subject of the 1914 discussion of the matter before the National Tax Association, says: "Professor Seligman is right. The tax-free covenant today represents the capitalization of the tax." And he thereupon proceeds to give a number of facts to substantiate his statement. A little later⁷ in quoting the discussion of the tax-free clause, he adds: "The investment banker can say, from actual experience, that Professor Seligman's theory accords with the facts."

Another brief,⁸ after quoting passages from several of my works, acknowledges the truth of the statement and gives in detail the differences in market value between the tax-free and non-tax-free bonds at various dates since the passage of the law. It concludes, as incontrovertibly proved, that the new purchaser of the tax-free bonds really loses the benefit of the exemption by having to pay so much more for the bonds. Of course, if the new purchaser loses the benefit of the exemption, he would by the same argument rid himself of the burden which might be imposed by a special tax. That is, in the latter case he would buy himself tax-free just as in the former case he would, through the increased purchase price, saddle himself with the capitalization of the exemption. Finally, in still another brief,⁹ the same point is again labored from the point of view of the bond market.

Truly he has a stout fight on his hands who attempts to convert a doctrine the practical application of which is attested by all the experts in the stock market.

There is one other point that deserves passing mention in this connection. Professor Adams, like many writers who have paid

⁶ *Income Tax. Information at the Source vs. Withholding at the Source. Memorandum of Argument by Counsel for Investment Bankers Association of America*, pp. 7-12.

⁷ *Ibid.*, pp. 15-16.

⁸ *Statement of the First National Bank of Chicago and the First Trust and Savings Bank of Chicago in Favor of Deduction at Source, etc.*, pp. 5-7 and pp. 25-27.

⁹ *United States Senate Committee on Finance. Memorandum Relative to Pending Revenue Bill. Withholding versus Information. Submitted on behalf of Investment Bankers Association of America*, pp. 16-22.

attention to the general problem, is much troubled by what he calls the diffusion of taxes. This is, indeed, one of the most difficult parts of the whole theory of finance. I have attempted to grapple with it, in one aspect at least, in the chapter of my work on *Incidence* where attention is called to the elision of taxation. Our critic's treatment of the subject, however, suffers from two serious defects. He does not distinguish diffusion, which has always been regarded as the result of the shifting or repercussion of taxation, from capitalization. For, as has been frequently pointed out, capitalization is the opposite of shifting. In the second place, even assuming that he means by diffusion what I have called elision of taxation as the joint product of diffusion and capitalization, he errs in unduly generalizing this process. For, as has been pointed out, capitalization applies only to a tax on certain kinds of property; while diffusion or shifting applies again only to certain taxes on commodities or industries. Elision of taxation is, therefore, not a universal phenomenon: there are many taxes which are never shifted or diffused, and there are others which are never capitalized.

IV

This brings us to Professor Adams' final point: namely, the diffusion of the unearned increment.

With much of what he here says I am in agreement; but I can not refrain from pointing out that, in the ardor of his enthusiasm he has somewhat exaggerated the situation. Take for instance the passage on page 279 where, in discussing the unappreciated value of the diffused increment, he cites the early cultivation of farms. He omits here to mention an important consideration. Is not the fact that the farmers can not make the current rate of wages on their farms a sure indication that they had better be doing something else? Ought we not to consider carefully the social loss of misdirected labor and capital; and ought this not to count on the other side of the balance? The same considerations apply to the railroads, mentioned on the next page, where the early extensions of railroads certainly represent, for the time being at least, a relative diminution in social productivity. Mr. Hurd has pointed out the same fact as to the social loss involved in urban real estate where unsuitable improvements are put or kept on the land.

Another point in which Professor Adams' conclusions may be

queried is the passage on page 280 where he contends that the manufacturer is forced to give back to the community the unearned increment which he is supposed to receive. This contention seems very doubtful. Is it true that manufacturers frequently, or indeed ever, look upon a piece of land as a matter of speculation? Professor Adams virtually asserts that the manufacturer located on "non-increment" land can not compete with the manufacturer located on "increment land." Does the manufacturer, it may be inquired, manufacture simply for the love of it? Why then does he not merely allow his land to increase in value, without bothering with the details of manufacturing? Unless he is compelled to manufacture in order to raise enough money to pay the carrying charges and thus preserve the title to his land and the future increment, the point is not well taken.

There are, also, other contentions in the article that seem to be of doubtful validity. Thus, take the passage on page 283 in which it is claimed that there is no justification for an increase of a tax on land "based upon . . . the general class of arguments which Mr. Fillebrown and his associates have made so familiar." If what is meant by this is the misapplication of the capitalization argument, the statement is quite correct. But if it is meant that there are no general arguments in favor of an increase of land taxes, the statement is, I think, untrue. At all events it is a mere assertion, unsupported by argument. In a separate memorandum in the report of the Mayor's Committee on Taxation an attempt has been made to give some of the reasons which make a moderate extra tax on land desirable.

Finally, the passage on page 282, where reference is made to the question whether it would pay the state to purchase all privately held land at existing prices, is questionable. For, even granting the truth of the diffusion theory of the unearned increment under private ownership, the problem of diffusion under public ownership is a very different thing. To mention only one consideration, the entire problem of the efficiency of public administration is involved.

V

Summing up the points made above, I should frame the general indictment against Professor Adams as follows:

1. He has exaggerated the doctrine of the diffusion of the unearned increment.

2. He has tilted against the wrong horse, opposing the general theory of exemption through tax capitalization, instead of showing the fallacy involved in attempting to apply this doctrine to land in the way the single taxers do. In other words, he has committed the logical error of attacking the major, instead of the minor, premise.

3. He has shown an inability to distinguish between exclusive or inclusive taxes and has confused new and old taxes. He has been unable to recognize that the so-called "equalization through competition" means precisely the same thing as resort to the taxless field, which he is reluctant to accept.

4. He has given a mutually contradictory theory of incidence, failing to observe that shifting and capitalization are opposite phenomena.

5. He has wholly mistaken the influence of taxation upon interest rates.

6. He has closed his eyes to the every-day facts in the bond market where the general theory, which he opposes, is utilized in practice.

May it not, therefore, be fairly claimed that Professor Adams has failed to weaken, much less to demolish, the general theory of tax exemption through tax capitalization?

EDWIN R. A. SELIGMAN.

Columbia University.

THE FARMER'S LABOR INCOME

No sound rural civilization can be built unless it provides a reasonable satisfaction for the desire for material goods. Discontent and the effort which characterizes the lives of the many who are not conspicuously successful in their effort for wealth accumulation do not arise so much out of the feeling that they do not have enough, but rather out of the feeling that they do not have as much as other people. So long as country people feel that they are handicapped in the struggle for property accumulation, just so long will they be inclined to give up the farm and move into the cities, even though that movement will involve in many respects a lower standard of living. The question of material welfare is so vital to the solution of the rural problem that it deserves extensive and very careful consideration.

In comparing the incomes of breadwinners on farms with those in other occupations it is necessary to keep clearly in mind the different groups to be compared. Too often the tendency is to make broad and indefinite generalizations from personal observation of wages in the city, of salaries of men in industrial enterprises, or of professional men, with what is known of the incomes of farmers in some limited community. No reliable or valuable comparison can be made except on the basis of similar factors of production in the city and in the open country. In both city and country the following factors must be considered:

1. Those who are in business for themselves.
2. Salaried managers.
3. Wage-earners.

In urban communities these factors are much more clearly marked than they are in the ordinary rural community. The farmer, whether he is owner or renter, is in business for himself and is as truly an enterpriser as is the owner or operator of a manufacturing plant, a railroad, a bank, or a mercantile establishment. But owing to the size of the farm business the rural enterpriser in most cases contributes not only the enterpriser's function but also supplies the management, most of the labor, the equipment, and the land. For this reason it is difficult to arrive at any accurate figure for comparison. The results of recent investigations of farmer labor incomes, taken in connection with those of other studies, make possible an approximately correct basis for

comparing the returns of urban and rural enterprisers and of others engaged in rural and urban industries.

Investigators of the incomes of farmers have not attempted to segregate the elements to be assigned to labor, to management, or to profits. They have used the term "labor income" to include all these items. This term, however, is misleading because it takes no account of the products used by the family from the farm itself, nor of the saving resulting from the use of a house. An approximate figure for comparison of urban and rural enterprisers' incomes can be obtained only by adding to the amount given as "labor income" in the farm management reports the value of supplies and house rent as shown by other studies. The result will represent a combination of wages, profits, and wages of management.¹ If the fact instead of the nature of the income is considered, it is possible to compare net returns of the farmer with returns of salaried men, wage-earners and professional men in the cities. It is also possible to make some estimate of rural and urban businesses as profit producers.

It would be interesting to make a comparison between the income of farmers and of those who are in the small business enterprises in villages, but so far the economics of village life has not been studied and consequently no basis for comparison is available.

The past fifty years have witnessed a marked shift in the relative amounts of urban and rural wealth. The introduction of steam power in manufacture and commerce has had a powerful tendency to centralize both population and wealth in the urban centers. The following table will show the relative amount of urban and rural wealth per decade since the middle of the past century. The population of incorporated places and of other rural territory for the past three census periods is also given to bring out the tendency toward a readjustment between rural and urban wealth.

These figures indicate that, although the rural population has constituted the larger proportion of the total population, the bulk of the wealth until 1900 continued to be increasingly urban. Owing to the remarkable changes in the agricultural situation in the past two decades the proportion of rural wealth has been on the increase. The urban communities, however, with 55.2 per cent of the population, still have 66 per cent of the wealth of the nation.

¹ The term "wages of management" is used to call attention to the element in the farmer's labor income corresponding to that of salaried managers in industrial enterprises as given in United States census reports.

TABLE 1.—Urban and rural wealth and population, 1850-1910.

Year	Urban wealth ¹		Rural wealth ²		Urban population (all incorporated places)		Rural population ⁴	
	000 omitted	Per cent	000 omitted	Per cent		Per cent		Per cent
1850	\$3,169,437	44	\$3,967,343	56	.....	.....	.....	.....
1860	8,179,123	51	7,980,493	49	.....	.....	.....	.....
1870	21,123,661	70	8,944,857	30	.....	.....	.....	.....
1880	31,461,499	72	12,170,501	28	.....	.....	.....	.....
1890	49,954,824	75	16,082,267	25	27,440,058	43.6	35,507,656	56.4
1900 ³	66,778,000	76	20,439,901	24	37,044,830	48.7	38,949,745	51.3
1910 ⁴	80,000,000	66	40,991,449	33	50,742,208	55.2	41,230,058	44.8

¹ Result obtained by subtracting value of farm property from total wealth, continental United States.

² The value of mines and quarries, 1900 and 1910, deducted from total wealth of United States, 1900 and 1910, in addition to agricultural wealth to find urban wealth. The capital invested in mines and quarries, 1910, was \$3,710,356,000. The inclusion of this amount in urban wealth would not materially change the percentage of rural wealth.

³ *Thirteenth Census of the United States*, vol. V (*Agriculture, General Report and Analysis*), p. 51.

⁴ *Ibid.*, vol. I (*Population*), p. 64.

In recent years the United States government has been conducting through its various bureaus investigations as to the labor income of the farming population. The data presented from studies already made reveal certain tendencies which are destined to have a far-reaching influence on economic and social theory both as to the relationship of man to land and as to the relationship of urban to rural population in economic welfare. The first of these studies to be considered is derived from the results of the census investigations of 1910, and is presented by Mr. Spillman, chief of the Office of Farm Management of the United States Department of Agriculture.² Mr. Spillman shows that according to the census records the average size of the farm plant for the United States in 1910 was 138.1 acres, of which 75.2 acres is classed as improved. The average investment per farm was \$6,444. The average amount in farm land was \$4,476; in farm buildings was \$995; in livestock, \$774; and in implements and machinery, \$199. The average farm income was \$640. If interest on the average investment is calculated at 5 per cent it is found to be \$322. Subtracting this amount from the average farm income leaves a labor income of \$318.

The labor income found by the United States Census Bureau is significant because of its close agreement with the results ob-

² United States Department of Agriculture, Bureau of Plant Industry, Circular 132.

TABLE 2.—Farm labor incomes.¹

1 State	2 Locality	3 Num- ber of farms	4 Average labor income	5 6 Better farms		7 Labor in- come plus farm prod- uct used on farm	8 Better la- bor income plus farm products used on farm
				Num- ber	Average labor income		
Conn.	Cayuga Co.	58	\$672	11	\$1,369	\$1,087	\$1,784
"	Winchester						
"	Goshen	54	344	12	944	759	1,559
"	Cornwall						
"	Windham Co.	45	220	8	857	635	1,272
"	Fairfield Co.	54	385	13	1,523	800	1,943
Maine	Penobscot	60	289	10	1,010	704	1,425
"	Hancock	89	32	8	942	447	1,357
"	Kennebec	100	192	13	979	607	1,394
"	Franklin	116	281	15	1,131	696	1,546
Mass.	Hampshire	83	1,462	19	4,280	1,877	4,695
"	Brimfield Town	45	355			770	
N. H.	Sullivan	42	154	8	671	569	1,086
"	Cheshire	66	181	10	833	596	1,248
Vt.	Rutland	70	396	10	1,482	811	1,897
"	Orange	61	364	10	1,156	779	1,571
Del.	Sussex	66	58	7	716	473	1,131
N. Y.	Chemung	218	253	35	816	668	1,231
"	Niagara	87	1,215			1,630	
"	Nassau	84	843			1,258	
"	Otsego	98	732			1,147	
Mich.	Alpenagton	50	334	10	881	749	1,296
Ohio	Portage	67	212	12	692	627	1,107
"	Washington	75	307	11	916	722	1,331
"	Trumbull	90	265	20	900	680	1,315
"	Geauga	167	346	25	1,662	761	2,077
"	Miami	104	493			908	
Ind.	Pulaski	61	191	13	903	606	1,318
Iowa	Montgomery	54	499			914	2,472
"	Greene	68	804	13	2,057	1,219	1,793
"	Scott	70	331	13	1,378	746	
"	Blackhawk	67	311	13	1,428	726	1,843
Nebr.	Madison	60	138	10	1,342	553	1,757
"	Thurston	53	1,448	15	2,650	1,863	3,065
"	Fillmore	68	-202			213	
Kan.	State of	440	844			1,259	
"	Greene Co.	44	1,889			2,204	
Minn.	Renville	62	423	16	1,065	838	1,480
"	Clay	62	414	10	1,398	829	1,813
"	Stevens	50	-156	10	622	259	1,037
"	New Scandia	64	444	10	813	859	1,228
"	Pope Co.	61	217	10	1,034	632	1,424
"	Ottertail	45	314	10	1,009	729	
Mont.	Missoula	46	148	12	1,634	563	2,049
Wash.	Walla Walla	45	423	10	1,137	838	1,552
"	King Co.	59	280	10	674	635	1,089
"	Wahkiakum	80	450	12	1,400	855	1,815
"	Spokane	124	832	10	3,504	1,247	3,919
Ore.	Lane	92	-37	13	1,026	878	1,441
Utah	Millard	59	613	10	1,758	1,028	2,173
"	Cache	52	946	10	1,997	1,361	2,412

¹ Data compiled from factor sheets and other publications, Office of Farm Management, United States Department of Agriculture.

tained from careful intensive surveys made by trained investigators in various parts of the United States, some of the results of which are presented below. The correspondence between the two sources of information is very strong evidence as to the accuracy of both.

The following table presents a summary of results secured by agents of the United States Department of Agriculture in the farm management demonstration service. The figures are based on the investigations made principally during the past two years.

It should be observed that location does not appear to have any marked effect on the labor income of the farmer. Nebraska shows a variation from minus \$202 to \$1,448 in average incomes. Massachusetts has a variation of from \$355 to \$1,462. Most of the states, regardless of location, show an average income of between \$200 and \$500.

The following table shows the grouping of average labor incomes:

TABLE 3.—*Distribution of farm labor incomes.*

Average labor income	All farms reported	Per cent	Better farms ¹	Per cent
Less than \$1	210	5.3		
\$1- 99	155	4.0		
100- 199	375	9.5		
200- 299	600	15.2		
300- 399	874	22.2		
400- 499	471	12.0		
500- 599	0	0		
600- 699	117	3.0	40	8.1
700- 799	98	2.5	7	1.4
800- 899	716	18.2	73	14.7
900- 999	52	1.3	77	15.5
1,000- 1,099	0	0	59	11.9
1,100- 1,199	0	0	35	7.1
1,200- 1,299	87	2.2	0	0
1,300- 1,399	0	0	44	8.9
1,400- 1,499	136	3.5	35	7.0
1,500- 1,599	0	0	13	2.6
1,600- 1,699	0	0	37	7.4
1,700- 1,799	0	0	10	2.0
1,800- 1,899	44	1.1	0	0
1,900- 1,999	0	0	10	2.0
2,000- 2,099	0	0	13	2.6
2,500- 2,999	0	0	15	3.0
3,000 or more	0	0	29	5.8
	3,935	100.0	497	100.0

¹ The apparent discrepancies in distribution of labor incomes for all farms and better farms is due to differences in averages when all farms are included and when better farms only are selected. For example: when 10 better farms in Spokane County, Washington, are considered, the average labor income is \$3,504; but when the 124 farms studied in the county are taken together the average income is \$832. This difference accounts for no farms appearing in the \$1,000-1,099 group when all farms are considered and 59 when the better farms only are averaged, and for similar discrepancies elsewhere in the table.

From the above table it will be noted that 49.4 per cent or practically one half of the average labor incomes for the entire area fall between the limits of \$200 and \$500. Of the better incomes selected by the demonstrators, 49.2 per cent, or practically one half, fall between the limits of \$800 and \$1,200. With the exception of the \$800 to \$899 group, which is apparently due as much to insufficient statistical data as to a true distribution, the mode of the average labor income distribution is under \$500; and 68.2 per cent of all the incomes are under this amount. Of the better incomes the distribution is much wider and more evenly spread. The reason for this is doubtless due to the personal factor which has not yet yielded to the equalizing influences of fluctuations in land values.

It is intended in the present discussion only to show the relation of farm incomes to rural welfare. A number of indications as to future conditions in American agriculture appear. The fact noted above, that average labor incomes show a marked similarity in all the localities for which data are presented and which represent practically all the northern half of the United States from the Atlantic to the Pacific, indicates that some equalizing agency is at work. This equalizing agency must be the tendency for changes in income-producing power to reflect themselves in changes in land values. Labor incomes tend through the work of economic law to a level, and the variations in productivity in the different sections will be found in the differences of land values. Thus it is not the wage-earner, the manager, nor the enterpriser who benefits by social change, but it is the owner of real estate.

Close students of the problem admit that if similar studies of labor incomes should be made in twenty years from now the average labor income would not be radically different from what present investigations show. The labor income of the farmer appears to be subject to the same laws as the labor income of those in other industrial fields. In this way the interests of the farm hand, of the renter, and of the owner who has paid a speculative price for his land, are common with reference to the private ownership of real estate. If the general rate of wages rises throughout the industrial system, a rise of farmer's labor income may be expected. If such general rate falls, a similar fall in agricultural labor income will follow. The gradual elimination of the profit element that may now exist in the farmer's labor income through the transfer of that element to the landlord in higher rents may actually lower present farmer's income rates.

That there is a tendency for changes in gross income to find expression in changes in land values rather than in labor income is shown by a comparison of investigations made of farm incomes during the period 1907-1911 and reported by Mr. E. H. Thompson of the Office of Farm Management.³ He shows that the average labor income of 2,090 farms studied in Indiana, Illinois, Iowa, Michigan, Pennsylvania, Oregon, New Hampshire, and New York was \$439. In Tompkins County, New York, 615 farms studied in 1907, eight years ago, showed an average labor income of \$423. New Hampshire gave a record for 1908, from 266 farms, of \$337. The fact that eight years of change in agriculture in which there has been a tendency toward rise in land values has not had an appreciable effect on the labor income is very strong evidence of the principle that social change reflects itself in land values rather than in labor income.

Another suggestion is that the landlord may be able ultimately to extract a rental from the land corresponding to the margin now existing between the income of the better farmers and that of the average farmer. As farm operators become more efficient, it is possible that competition for land will give the preference to the more efficient land operators who know that for a given rental, even though higher than the average, they can make more than the average farmer. The tendency appears to be for all differences in personal efficiency or in industrial organization to reflect themselves ultimately in the value of land. Thus it is the landlord as such and not the laborer, the capitalist, nor the man who is in business for himself who benefits by changes in demand or in methods of production.

This tendency toward equalization of labor incomes in all parts of the country is of vital importance in relation to the future economic welfare of the farming population. If land-ownership operation should cease to be a characteristic of agriculture in the North Central division, the center of farming interests in the United States and one of the richest agricultural sections in the world, and if tenantry should become a fixed institution, then the farmer's income of the future would be limited to that margin above the rental rate which corresponds to the wage-earner's income in the city and the surplus income would go to residents of the villages or the cities. Should tenantry continue to increase

³ *Annals of the American Academy of Political and Social Science*, vol. 50, p. 177.

as it has in the past, there is no doubt that American agriculture is doomed to an absentee landlordism and a peasantry as bad as has developed in any foreign country where lack of understanding of tendencies has permitted agriculture to deteriorate. This peasant type of agriculture is likely to appear the sooner because of the relatively greater freedom of economic forces in America from the influence of social or legal institutions. On the other hand, if ownership operation can be preserved and the present policy of permitting the owner to benefit by increases in land values be continued, then we may witness in the future a rural population well-to-do and really in a position, through their intelligence, wealth, education, and leisure, to exert a dominating influence in American political and social life.

The figures quoted in columns 4 and 6 of Table 2 as to labor incomes are misleading in that they take no account of what the farm supplies toward living expenses. Another study has been made by the United States Department of Agriculture of this phase of the subject with results that may be utilized in the attempt to approximate accuracy in presenting the facts as to the farmers' income.⁴ Studies have been made of 483 families in 10 representative agricultural districts (North Carolina, Georgia, Texas, Kansas, Iowa, Wisconsin, Ohio, Pennsylvania, New York, and Vermont). These sections are representative of the sections in which farmers' income investigations have been made and which are presented in this discussion. These studies showed that on the average the farm was supplying a total of \$421 per family toward its support. The average for the seven northern states was \$415. If this latter amount is added to the average labor incomes noted in Table 2, the totals in columns 7 and 8 of that table result. In but few instances does the revised income fall below \$600 per year. Of 3,935 farms considered, 579 or 14.7 per cent had labor incomes of less than \$600; 2,106 or 53.5 per cent had incomes of \$600 to \$1,000; and 1,250, or 31.8 per cent, had incomes of over \$1,000.

The above results afford a basis for comparison of labor incomes of farmers with other classes of the industrial system. It is impossible to compare farmers' profits with the profits of business men because, except in corporations, knowledge or information as to profits from urban business is not available. On the other hand, the farmers' labor income is made up of a combination of wages, salary, and profits. It is possible, however, to compare

⁴ Farmers' Bulletin 635, p. 5.

the farmers' labor income with that of wage-earners, and with salaried officials, and to some extent with certain of the other professions.

The farm does not now, and in all probability never will, offer the opportunity for the acquisition of extremely large fortunes that urban industry has offered. This difference is due to the size of the plant most economical for agriculture as compared with the centralization of control and of operation possible in industries located in the great urban centers. The farmers' business is not capable of expansion to meet a growing national or world-wide demand, as is manufacturing or commercial industry. The land basis for agriculture rapidly brings the plant of increasing size to the point where personal oversight is not sufficient to yield a correspondingly large return. Consequently, persons ambitious to become millionaires through the operation of their business had better turn their attention to urban occupations.

But before deciding to become a millionaire by following an urban occupation some attention should be given to the chances for success. Occasional reports are made of men who are drawing from \$50,000 to \$100,000 per year as salary for the managing of some large industrial corporation. The papers were full of comments recently about the \$500,000 payment to a prominent moving picture star for his services for one year. The fact that these incomes are matters of public notice is evidence of their rarity. Recent investigations have shown that in urban industry very few men are in a position to determine what industrial policies shall be. The United States census for 1910 shows the distribution of a large part of the breadwinning population according to its official position in the industrial system. After agriculture, manufacturing includes the largest single group of employees. The distribution of those engaged in manufactures is as follows:

	<i>Number</i>	<i>Per cent</i>
Persons engaged in manufactures.....	7,678,578	100.0
Proprietors and firm members.....	273,265	3.6
Salaried employees	790,267	10.2
Wage-earners	6,615,046	86.2

Other industrial groups show a similar distribution of wage-earners, salaried officials, and proprietors. As contrasted with the leading industrial group, the distribution of those engaged in agriculture is interesting. Of the 12,659,203 persons engaged in agricultural pursuits, two groups are classed as "farmers" and "farm laborers." Their relative importance is as follows:

	<i>Number</i>	<i>Per cent</i>
Farmers ⁵	5,865,003	49.2
Farm laborers	5,975,057	51.8

Practically half of the agricultural group are business men, while but 3.6 per cent of the manufacturing group can claim that distinction. These figures indicate, first, that the chances of becoming a successful business man in manufacturing are very small, since there are less than 300,000 out of a population of 92,000,000 who are proprietors and firm members in manufacturing. These 273,000 proprietors represent a capitalization of \$18,428,270,000. In view of the importance of the manufacturing business it may be inferred that the chances are similarly small in other urban activities.

In the second place, these figures demonstrate that for the one who wishes to be in business for himself the farm offers by far the largest opportunity. Whereas in manufactures there are only 273,265 proprietors and firm members, in agriculture, without considering special phases of the industry such as dairying, forestry, etc., there are 5,865,000 such persons. This number is larger than the total number of persons employed in trade, in transportation, in domestic and personal service, or in any of the other great industrial groups classified by the United States census.

In the third place, since any general movement of the rural population to urban communities in the tendency toward equalization of income would necessarily have to be into the wage-earning or salaried classes, it is important to compare the returns of the average farmer with those of both the urban wage-earner and of the salaried official. It is possible from the records to make an approximate comparison of this kind. In the manufacturing industry for 1909, 792,168 salaried employees received a total salary of \$940,900,000, or an average of \$1,187 per employee; 6,639,931 wage-earners received a total of \$3,434,734,000, or \$517 per employee. In the mining industry, 46,694 salaried employees received an average salary per employee of \$1,205, while 1,093,286 wage-earners received an average income of \$554. These groups may be taken as typical of the trend of wages in urban centers.

When these averages for different types of employees in urban

⁵ It has been suggested that in the South many of those classed as "farmers" are practically little else than farm laborers. Tendencies in the cotton belt, however, appear to favor the small independently operated farm, and the colored farmer will probably continue to rise in the scale of independence.

industries are compared with the results obtained from the study of farmers' labor incomes, it is apparent that the farm operator does not, on the average, compare in his returns with the average salary of the administrative employee of the industrial system. Of the farmers studied, 69.2 per cent had incomes, including what the farm produced, of less than \$1,000, while the average for the salaried employee is \$1,100 to \$1,200.

Unless proprietors and firm members are, on the average, more prosperous than their employees there would not be such an abiding interest in attempting to make a margin of personal profit through the employment of others in a given industry. So it may safely be assumed that whatever the profits of proprietors are, they are on the average greater than the average wages of the salaried employee. Thus the farmers as a group are not receiving returns for services rendered that are equal to the returns of either salaried employees or of proprietors in urban industries.

On the other hand, the farm proprietor ranks somewhat higher in his average income than does the urban wage-earner. As shown by the figures above, the wage-earner in manufacturing industry received on the average \$517. However, as the farmer belongs in the group of enterprisers, his economic welfare should correspond with that of others of his type.

A comparison of the labor incomes⁶ of the best farms studied with incomes of other groups reveals the fact that the best returns correspond on the average very closely to the salaries of the better employees in manufacturing industries. Of 477 selected farms the incomes were distributed as follows:

<i>Farm labor income</i>	<i>Number of farmers</i>	<i>Per cent</i>
\$1000- 1499.....	236.....	49.4
1500- 1999.....	127.....	26.6
2000 or more.....	114.....	24.0

It is apparent that about half of the best farmers secured an income falling between the limits \$1,000 and \$1,499 or in that group represented by the salaries of the better grade of employees. About half of the better farmers exceeded \$1,500 per year. The better farms selected by the investigators constituted about 18 per cent of all the farms studied. Of these, 44 farmers, less than 2 per cent of all, made labor incomes exceeding \$3,000.

As compared with incomes of salaried professional men, the

⁶ Labor income reported by farm management demonstrations plus average amount consumed from farm.

average labor income of the farmer is at the present time considerably higher. According to the 1910 census record there were 117,018 male clergymen in the United States; 15,668 college presidents and professors (male and female); and 118,442 male school teachers. There were but 929,684 men in professional service of all kinds as compared with over 10,000,000 in agriculture. The average salary of ministers for whom salaries were reported in 1906 for the United States was \$663. This does not include parsonage or other perquisites. Teachers' salaries have been rising during the past few years. In 1908-1909 the average monthly salary for male teachers was \$63.39 per month; in 1910-1911 it was \$73.86; and in 1912-1913, it was \$78.29. If the average length of the school year is taken as eight months, male teachers' salaries have arisen from approximately \$507 in 1908-1909 to \$626 in 1912-1913. In most cases teachers do not get free house rent or board as an additional compensation for their services. It is quite evident that, as compared with clergymen or teachers, the farmer is on the average much more fortunate.

The conclusion, then, is that at the present time the farmer is faring better than the great majority of breadwinners in the cities and is better off financially than the leading groups, numerically, of professional men. The better grades of farmers compare favorably in their returns with salaried employees; and, since the students of labor incomes have chosen to include at least 18 per cent of the farmers in the better grade, as large a proportion of the total number of farmers are doing well as of the industrial group, where the ratio of salaried men to wage-earners, taking manufacturing as typical, is as 1 to 16. The farm does not offer the opportunity for the acquisition of extremely large fortunes, but because of the very large number of farm plants it does offer by far the largest opportunity in American life for the exercise of the enterpriser function with a high degree of assurance of a reasonable business success.

Since over half of those engaged in general farming are classed as farm laborers, and since 2,636,966 of these were returned as working away from the home farm, some attention must be given to the relative returns of farm laborers as compared with urban laborers and with farm operators. The following table shows average farm wages in the different sections of the United States from 1899-1909 with and without board.

TABLE 4.—Wage increase, 1899-1909.¹

Division	Rate per month with board		Per cent increase	Rate per month without board		Increase		Per cent increase per year
	1899	1909		1899	1909	Amount	Per cent	
United States	\$13.90	\$20.80	49.6	\$19.97	\$27.43	\$7.46	37.3	3.7
N. Atlantic	16.60	20.73	24.8	25.44	33.68	8.24	32.4	3.2
S. Atlantic	9.26	13.10	41.2	13.35	20.13	6.78	50.7	5.1
N. Central	17.86	25.42	46.4	24.75	32.90	8.15	33.3	3.3
S. Central	10.97	16.57	51.0	15.47	21.85	6.38	41.2	4.1
Western	25.19	35.32	40.2	35.64	47.24	11.60	32.5	3.2

¹ United States Department of Agriculture, Bureau of Statistics, Bulletin 99, p. 44.

The per cent increase for the United States was 49.6 with board, and 37.3 without board. In the North Central division the per cent increase without board was 33.3 and with board 46.4. These results should be compared with the rate of increase in land values as shown by the following table:

TABLE 5.—Increase in land values per acre of land in farms, 1900-1910.¹

Division	Per cent increase
United States	108.1
New England	40.5
Middle Atlantic	24.5
East North Central	79.6
West North Central	123.1
South Atlantic	110.3
East South Central	86.7
West South Central	197.4
Mountain	222.4
Pacific	146.1

¹ Thirteenth Census of the United States, vol. V (Agriculture, General Report and Analysis), p. 43.

It is quite evident that landowners have benefited by social changes going on much more than have wage-earners. In the marked disparity between rate of wage increase and land value increase may be found the basis for some of the serious labor problems confronting farming communities at the present time.

The following table gives the maximum possible average yearly return to farm laborers for the years 1909 and 1915 as based on the statement of average monthly salaries.

Farm hands evidently do not fare nearly so well as do tenants. Moreover, the rate of increase per year for the past six years indicates that wages have not risen as rapidly as they did during the preceding ten years. No data are available showing the rise in land values during the latter period, but it is a matter of common observation that land has continued to rise at a rate comparable to that of the preceding period.

TABLE 6.—Farm wages per year without board.¹

Division	1909	1915	Per cent increase	Rate of increase per year
United States.....	\$329.16	\$361.80	9.9	1.7
North Atlantic.....	404.16	424.68	5.07	.84
South Atlantic.....	241.56	257.64	6.65	1.10
North Central.....	394.80			
East of Mississippi...		419.20	7.22	1.44
West of Mississippi...		454.80	6.62	1.32
South Central.....	262.20	277.08	5.67	.94
Western	566.88	579.72	2.27	.37

¹ Monthly Crop Report (U. S. Dept. Agr.), Mar. 16, 1916.

The nominal wages of farm laborers as compared with those engaged in urban employments also show that they are at a disadvantage. The average monthly wage, without board, for farm hands in the United States in 1909 was \$27.43; or for a twelve month period it was \$329.16. The average annual wage in the manufacturing industry, as shown in the preceding discussion, was \$554. This comparison applies to wages alone and does not take into account other factors which make urban employment more attractive to the wage-earner than work on the farm. Probably if the 2,000,000 or more farm hands were to receive a return more nearly commensurate with that of their city brethren, land values would not show such a marked rise and the labor problem would not be so serious as it now is.

In the factor sheets resulting from the recent investigations no comparison is made, as a rule, between the labor incomes of farm tenants and farm-owner operators. In Jackson County, Minnesota, 14 renters made an average labor income of \$777, while 24 owners made an average income of \$288. In Johnson County, Missouri, 272 owners made average incomes of \$314, while 179 tenants made incomes of \$501.⁶ In Iowa similar results were obtained. For the earlier period of investigations (1907-1911), 722 tenants made labor incomes of \$770 while 2,090 owner farmers made labor incomes of \$439. These figures do not indicate that the tenant is a better farmer than the owner but that at the present valuation of land the owner is receiving less than a commercial rate of interest on his investment, since he expects to make the usual interest rate or more through the rise in land values. The difference between the income of the tenant farmer and that of the owner farmer is to be found in the larger

⁶ University of Missouri Experiment Station Bulletin No. 121, *Land Tenure*.

interest charged off on the investment in the records taken of owner-operated farms.

When economic friction has been overcome, the margin between what the owner operator receives and what the tenant receives will disappear. The tendency for rents to rise may be expected in the future as owners become aware of the discrepancy between their returns and those of tenant farmers.

The data presented above indicate that, while at the present time labor incomes of farmers compare favorably with those in urban industries, the institution of private ownership of land does not offer much hope for further increase of these incomes unless the system of owner operation can be preserved. Laborers are evidently not benefiting by the economic changes taking place. Tenants are nominally getting the larger incomes; but this apparent return is due to method of presentation of returns rather than to actual advantage. The uniformity of labor incomes throughout the entire area studied indicates that private ownership of land by absentee landlords who reap the benefit of such ownership, even though absent in the neighboring village, is bound to become a question of supreme importance in the future. The present status of wealth distribution is such that the farmer has a common problem with the great mass of urban residents in wanting to know to what extent the tendency toward centralization of control and ownership of wealth in the cities in the hands of a few lessens the opportunity of all, both rural and urban, to enjoy still more of material goods which present resources of the United States justify. The problem of farm incomes is not now a serious one as related to social welfare in the country; but if present tendencies continue it is bound to be a serious one for those actually living in the country in the future. If one half or one third of the wealth produced on a given farm is to go to others than the operator; if farm labor is to increase because of the lack of opportunity to gain a foothold, due to high land values; then we must expect that the great central valley, one of the greatest agricultural sections of the world so far as resources is concerned, will be doomed to bear a burden that will breed discontent; that will drive our young men and women from the country; and will bring to America problems that now confront other nations in which statesmen recognize that a good income for farmers, and that ownership operation, are essential to national welfare.

PAUL L. VOGT.

Ohio State University.

REGULATION OF A GOVERNMENT FOSTERED MERCHANT MARINE BY THE AUTOMATIC TEMPERING OF ITS SECURITIES

For many reasons a large increase in the number of merchant ships owned by citizens of the United States and registered from the ports of this country is regarded as extremely urgent and necessary in the development of foreign trade and in the formation of an auxiliary fleet that would be immediately available in time of war. But the methods that have been proposed for accomplishing this result have seemed to be open to serious objections from various sources. It appears that privately owned ships under American registry find it very difficult in normal times to compete successfully to any great extent with those of foreign registry, yet government ownership is strenuously opposed by various interests, and a subsidized merchant marine does not command great popular favor in this country. Let us consider, then, whether there might not be a way of increasing our merchant marine by a form of government assistance which might not be open to any important objection—first briefly reviewing some elementary financial and economic principles.

Two fundamental methods of subsidizing private corporations.

The value of a corporation stock obviously depends chiefly upon the returns expected in the future, including the liquidation of the capital investment. The yield of income per share of stock depends upon the amount of the total fund of earnings available for apportionment among the shareholders, and also upon the number of shares participating in the dividends. Thus the value of the stock depends finally upon both the total fund of earnings to be divided and the number of shares that participate in the earnings. Therefore a subsidy may be granted to a corporation either by increasing the total amount of earnings that may be distributed or by diminishing the number of shares that will participate in the total available fund of earnings to be divided. But the subsidy which increases the fund of earnings is very difficult to apply so that its benefits may be shared equally by the general public and the corporations obtaining such favors, while the amount of the subsidy which would be granted by supplying part of the capital required by an enterprise without participating in

the earnings could be easily controlled so that the profits received by those who invest in the enterprise would closely conform at all times to the market requirements for such investments. Then the general public would have the assurance that such a subsidy could not build up a special privilege which any member of the investing public might not enjoy on equal terms if he so desired.

Objection to subsidies which increase earnings.

Assuming that an investment requires that the capital be paid in at par for all of the stock issued, then the market value of such stock would remain at par as long as the expected earnings compared favorably with the expected returns from other investments having similar risks. It appears, however, that under normal conditions the returns that might be expected from any considerable investment in our merchant marine would not be great enough to promote a sale of stock at a price equal to the capital cost of the investment represented. Therefore, in order to make this very desirable and necessary investment sufficiently attractive, it has been proposed to increase the returns by a direct subsidy from the national treasury. Although this practice may have proved a public benefit in some of the countries in which it has found favor, it is open to the objection that it is difficult to administer such a subsidy in a way to avoid the wasting of public funds in unearned private profit, and that if the shipping business were operated under conditions that were not strictly competitive a much larger subsidy might be necessary than should be required. Under such conditions the public would actually be subsidizing a private monopoly operating in restraint of trade.

If the par value of the stock of a shipping corporation represented the actual capital investment not covered by other securities and obligations, then the efficiency of the subsidy to attract the necessary capital would be shown if the market value of the stock remained at about par. Too small a subsidy would not accomplish its purpose in securing an adequate increase in the merchant marine, while too large a subsidy would either increase the number of ships beyond efficient requirements or give to the shipowners unearned profits which could not be shared on equal terms by the general public. If a considerable degree of monopoly existed in the shipping business, a subsidy would act chiefly to increase the profits of the dominant corporations without adequately benefiting the public or even securing the increase in the merchant marine

which the public would be entitled to expect. So without definite provision for competitive investment by the general public in additions to our merchant marine, the large corporations would still retain the advantage which they have now over small competitors, with the result that the general public could not make investments in additions to our merchant marine and so make use of the subsidy on equal terms with the stockholders in the dominant ship-owning corporations. Nevertheless, a subsidy under such conditions might be advisable if there were no better way of securing relief from the present situation.

Subsidy by fortification of securities.

It would be possible to carry out a plan whereby the amount of a subsidy to increase profits could be automatically controlled by the relation between the market value of the stock of the subsidized corporation and an established and fixed cost value of the capital investment in such a way that the objections to a subsidy would be overcome,¹ but the method of providing a subsidy by the fortification of the stock of the corporation would be much simpler and more economical in administration. This method would be carried out by reducing the number of shares that would participate in the fixed quantity of available earnings instead of increasing the amount of earnings to be distributed among a fixed number of shares.

For example: Suppose it would cost \$600,000 to build a steamship, and the conditions were such that the future yearly earnings from the investment might be expected to be \$36,000, affording a 6 per cent return, but that other opportunities were such that an investment of this character would not be attractive unless the expected returns were 9 per cent, or \$54,000. Under these conditions, then, it would take a government subsidy of \$18,000 to make the investment sufficiently attractive. But exactly the same result would be attained if the government furnished \$200,000 of the capital investment required to build the ship but did not participate in any of the earnings, while the public invested \$400,000 and received the whole available earnings of \$36,000, which would then amount to 9 per cent on their investment. This method would also be much cheaper because the \$200,000 would cost the government perhaps only 4 per cent, or \$8,000 a year, whereas the sub-

¹ See "Automatic Regulation of Monopoly by Competitive Investment," *AMERICAN ECONOMIC REVIEW*, vol. V (June, 1915), p. 303.

sidy necessary to accomplish the same result by increasing profits would cost \$18,000 a year, or $2\frac{1}{4}$ times as much.

This fortification of the securities of the corporation might be accomplished by the government paying \$600,000 for the ship and then issuing 600 shares of stock for popular subscription at \$666.66 a share, which would then cost the public \$400,000, and yield a 9 per cent return; or the stock fortification might be carried out by having the ship built by a private corporation for \$600,000 under an agreement that the government would buy 200 shares from the stockholders at \$200,000 which would not participate in any earnings, and would thus leave 400 shares, representing an investment of \$400,000 to participate in the \$36,000 earnings available, which would then afford the stockholders a return of 9 per cent on their investment as in the first case.

Automatic control of subsidy requirements.

As thus far described, the methods of subsidizing by the fortification of stock contain most of the defects that were noted in regard to subsidy by increasing earnings. The investment would be speculative and not fully competitive because the general public could not handle it on equal terms with a large and dominant corporation, and even if the stock were sold to the highest bidder it would be impossible to discount the future so that there would be any assurance that the value of the investment would remain very long at the amount that was paid for it. If the securities were fortified by the whole capital stock being sold to the general public there would seem to be no way of remedying these defects; but if part of the stock were bought by the government at the cost of the capital investment, then the amount of government assistance necessary to fortify the stock sufficiently to make it attractive to the investing public could be automatically determined, not only for the market requirements at the time the investment was made but it could also be adjusted at all times to meet any changes in conditions that might take place in the future. This result would be secured if a *private corporation issued stock at par to provide the capital necessary to build and operate a shipping line under a charter which provided that the government would purchase at any time also at par whatever amounts of stock were offered by the stockholders, and furthermore that the government would reissue at par on demand whatever amounts of stock were applied for by the public, it being provided that the stock*

should not participate in any earnings during the time it was in the hands of the government—the principle involved being very similar to that underlying the national banking system. Then if the expected earnings from a \$600,000 ship were only \$36,000, while an investment of that character with a probable yield of less than 9 per cent would not be attractive to the public, the ship could be built for the \$600,000, and 200 shares could be redeemed by the government, leaving only 400 shares to participate in the \$36,000 earnings, which would then allow a return of 9 per cent on the investment. And then if the quantity of stock to be redeemed were left to the choice of the investors, the necessary fortification of the stock would be accomplished automatically to meet exactly the requirements of the market. For, if the market required a probable return of only 8 per cent, then when 150 of the 600 shares had been redeemed, leaving 450 shares earning 8 per cent, a stockholder would find it more profitable to retain his investment in the ship and participate in the \$36,000 earnings divided among 450 shares than to cash his stock at the federal treasury and invest his capital in some other enterprise. On the other hand, if the market offered 10 per cent on such investments, the stockholders could cash in their stock at the federal treasury until only 360 shares were left to participate in the \$36,000 probable earnings and so receive the required return on their remaining investment in the ship.

Furthermore, if the government also reissued the stock, whenever applied for, at the same price per share which it paid, and these conditions of redemption and reissue on demand were continued indefinitely, the necessary requirements for the fortification of the stock by the government would be automatically met, not only at the beginning of the enterprise, but also at any time in the future, since all changes in earnings or market conditions could be immediately discounted by applying for the redemption or reissue of stock by the government until the number of shares remaining to participate in the available earnings would yield a profit corresponding to market requirements. Accordingly, if the increase in the American merchant marine became so great that the earnings of our \$600,000 ship fell off to only \$31,500 a year, those stockholders who could use their capital to better advantage in other ways could get 50 shares redeemed by the government, leaving only 350 shares to participate in the reduced earnings, which would then again afford a 9 per cent return on

the reduced investment held by the stockholders. On the other hand, if the earnings increased to \$40,500 a year, the public could apply to the government for a reissue of 50 shares at par, which would increase their number to 450, and thus dilute the stock so that the \$40,500 would still provide a return of 9 per cent on the larger investment; furthermore, if the certainty of receiving a definite income increased the confidence of the public so that a yield of only 8 per cent on their investment was acceptable, then the dilution of the stock by the reissue of 50 shares would still allow the lower acceptable return of 8 per cent on the increased number of shares to be paid out of the original \$36,000 earnings.

Saving in subsidy requirements by the automatic fortification of stock.

In the operation of the method of subsidizing our merchant marine by the automatic fortification and dilution of securities it is apparent that, whatever might be the earnings of the enterprise, the yield of the investment of the stockholders would always conform closely to the requirements of the investment market. For, although a considerable fluctuation in earnings might occur from year to year, a properly averaged dividend fund would equalize the yearly income on the shares, and the accumulated surplus could be added to present value so that the profits which should be actually credited to the stock each year could be closely approximated. And, furthermore, instead of the value of the stock rising and falling with the earnings, which are subject not only to temporary fluctuations but to large increases and decreases which may be permanent, these permanent variations would be taken care of by the fortification and dilution of the stock so that its share value could not at any time become greatly altered. Then, since the value of an investment in such stock and also its future yield of income would be stable and uniform, the character of such an investment would approach that of bonds of good security; and, therefore, since the yield required on such securities is not as great as that demanded on securities whose value is speculative and liable to considerable reduction, this method of fortification and dilution of stock would result in another large saving to the government in the subsidy requirements. So the necessary assistance to a merchant marine might in this way be given at little cost or even at a positive profit to the government. For, not only would the interest on the money required to fortify

the stock be less than the annuity which would be required as a subsidy to increase earnings, but the money required to fortify the stock would be less on account of the greater certainty of the return on the investment. For the \$600,000 ship in our example, when earning a net profit of only \$36,000, a direct subsidy of \$18,000 would be necessary to make up the deficit in the required income, if the market demanded 9 per cent of the stock investment. This subsidy, however, would cost the government only \$8,000, if it could borrow at 4 per cent the \$200,000 necessary to fortify the stock; and, furthermore, this cost would be reduced to zero if the added security of this practically guaranteed investment were sufficient to induce the public to accept a 6 per cent return on it instead of 9 per cent. In this case, although a temporary fortification of the stock to the extent of \$200,000 might be necessary, the 200 shares bought by the government would be finally reissued at par to the public on application.

Now suppose, finally, that foreign trade became so active that the earnings from the \$600,000 ship were increased from \$36,000 to \$42,000 a year. Then if the extra earnings were prorated among the stockholders the stock would lose its strict investment nature and take on a speculative character. Its value might rise above par, but yet no one paying more than par for a share would have any assurance that he could at any time in the future dispose of his investment for as much as he paid for it. Those who happened to hold the stock at the time of its rise above par would receive gratuitous benefits at the expense, later on perhaps, of the general public who might wish to purchase the stock on an investment basis. Under such conditions, then, the interest of the general public would be best promoted if the government were to continue to issue stock at par to all who applied for it, even though the capital investment of \$600,000 in the ship were exceeded. Then if the market required a 6 per cent return on investment, and the earnings were \$42,000, the number of shares participating in the earnings would be increased from 600 to 700, so that a return of 6 per cent would be provided on the 700 shares. The result would be that the old shareholders as well as the new would get an acceptable return on their capital, while the government would have the use without interest of the \$100,000 that would be paid into its treasury, but this fund would be subject to call whenever the shareholders became dissatisfied with the income received from their investment. Such a fund could be used

in part to fortify the stock of other desirable enterprises, sometimes perhaps in lieu of an undesirable protective tariff. In a similar manner such funds could be derived from other enterprises organized perhaps under protective tariffs found to be desirable by a non-partisan tariff board, or from closely coöperative industrial organizations in large units which it might be desirable to create in the interest of domestic business and foreign commerce, or it would afford an unobjectionable substitute for government ownership of the railroads if no other regulative methods can be as satisfactorily applied. The coöperation of the federal government with business enterprises along such lines might provide it with the use of large funds that could be employed for various desirable purposes in the assistance of commerce and trade, and at the same time there would be no objection under these conditions to allowing business to be conducted as a monopoly if necessary, or in any manner in which it could most effectively hold its own in competition with the dominant business organizations that have been built up under government assistance in foreign countries. On the other hand, if a reduction in transportation charges or prices to American consumers were found to be more desirable than a greater accumulation of funds for the use of the government without interest, such a reduction in charges or prices could be made arbitrarily by the Federal Trade Commission without affecting the profits of the stockholders. For, if in our example the freight charges were arbitrarily reduced so that the earnings remained at \$36,000 instead of rising to a possible \$42,000, then, under a requirement of 6 per cent return, there would be no application for more shares at par than the original 600, since the participation of a greater number of shares would then reduce the return on each one to less than 6 per cent. This would allow a control of freight charges and prices to conform to foreign trade conditions without interfering with the incomes of the American investors in these protected organizations, and also without risking a possible restraint of trade which could in any way injure the general public.

Credit not impaired by diluting stock.

The credit of an organization controlled by the automatic fortification and dilution of securities would not be impaired by the dilution of its stock by the purchase of shares from the government in excess of the actual cost of the investment, because

every share of stock issued would be represented either by corporate assets of actual physical cash value or by deposits in the federal treasury that could be taken out at any time that a stockholder preferred cash to the expected income on his investment. This condition obviously has nothing in common with the dilution of securities resulting from gratuitous dividends of stock whose value is based entirely on expected earnings and bears practically no relation to possible liquidating values or to the capital cost of the investment.

Desirable provisions in federal charters.

In return for the assistance and protection of the government, federal charters of shipping organizations should provide for mail service to the government at normal rates, for transport service and whatever auxiliary service the government might at any time require. The capital advanced by the government to fortify the stock should stand against the property of the corporation as a first mortgage which would have to be satisfied before the property could be sold, before the shipping could be taken from the control of the government, or before its registry could be cancelled. A sinking fund against depreciation should be set up, which would keep the property at a value sufficient to refund the amount advanced by the government and to finally liquidate the stockholders' investment at par. On the other hand, any appreciation in the value of the property of the corporation should be counted as an addition to the total fund of earnings which would be available for the sinking fund and for dividends to stockholders.

In order that the public might be able to estimate the probable return from the corporation securities, full publicity should be required at all times in regard to all the details of the business which would affect the earnings; and in order that the public should be equally benefited by the government assistance, the shipping business should be conducted as that of a common carrier whose services would be available to all the citizens of the nation on equal terms.

Provision for economy and efficiency in production.

There still remains to be noted an extremely important feature that should be most carefully provided for in all plans for the coöperation of government with business. Industrial corporations

organized on the plan so far described would still contain the vital defect usually attributed to government operation of industries. Since their income would not be greatly affected by changes in the cost of operation, there would be no direct financial incentive for the stockholders to provide for an efficient and economical business management. Of course the rewards for economy and efficiency should naturally go to the managers and workmen in a business, who are actually responsible for such results; but, until an adequate method is established for distributing such profits to those who earn them, an acute financial interest in economy and efficiency must remain with the stockholders, who control the management of the organization. An increase in the earnings of a corporation which is due to restraint of trade, to the destruction of normal competition, or to privileges granted through the corruption or deception of public officials is usually contrary to the interest of the consuming public; but an increase in earnings due to a reduction in the operating costs of production is not opposed to the public interest when such a reduction in cost is finally followed, as it would be under competitive conditions, by a reduction in the price at which the public may obtain the goods or services of the corporation. Gains in economy and efficiency which are in the public interest will therefore appear as a reduction in the unit costs of operation in the accounts of the corporation. So the interest of the stockholders in economy and efficiency in production would not be interfered with, if the gains in earnings resulting in improvements in operation were distributed among the stockholders who were in control when such gains were made, as an extra before the prorated participation in the remaining earnings by all the stockholders. The gain in economy and efficiency might then be even greater than in unregulated industries, because the managers would no longer have their attention drawn away from efficiency in production by being able to profit by restraint of trade or by the manipulation of securities in the market.

To show how the segregation of the gain due to economy and efficiency could be carried out in practice, suppose in our example that the accounts showed that because of skilful management the unit costs of the operation of the ship per ton mile had been reduced enough to save \$4,000 during the year on the business done, but that the yearly earnings had increased from \$36,000 to \$49,000. *Then the \$4,000 could first be distributed among the*

400 shares which were outstanding before the first of the year, leaving \$45,000 to be then distributed among all the shares that had been carried during the year. Assuming a required return of 9 per cent, the \$45,000 left would then satisfy an investment in 500 shares. So without falling short of acceptable returns the stock could have been diluted by the purchase of 100 shares from the federal treasury, which would then have reduced by \$100,000 the necessary fortification of the stock by the government. Whether such a quantity of reissued stock were actually purchased and carried throughout the year or not would of course depend upon the ability of the public to judge from the indications of the business at the beginning of the year that the \$9,000 increase in earnings would probably be realized.

On the other hand, suppose that on account of careless management the cost of operation had increased \$4,000 instead of decreasing, and that the yearly earnings accordingly were \$41,000 instead of \$49,000. Then the 400 shares outstanding at the beginning of the year should be charged with the \$4,000 loss before computing the amount of earnings to be prorated equally among all the shares. This credit would then build the dividend fund up to \$45,000 to be divided equally among all the shares carried throughout the year, as before. The result would then be that the stockholders who allowed the increase in operating costs would get only 8 per cent on their 400 shares, while those who purchased the 100 shares reissued by the government would receive 9 per cent on their investment.

Since the saving for one year would probably provide too small a reward to the stockholders who would be responsible for economical and efficient management, *the gains and losses in the cost of operation should be credited and debited for a suitable term of years to the stock outstanding at the time these gains or losses were made.* The principle involved is the same as that by which the length of time during which a patent right is allowed to run is determined.

Advantage of building a merchant marine by automatic fortification of securities.

The foregoing description shows how a merchant marine could be built up by methods following the lead of economic and business principles without resorting to public ownership or arbitrary regulation, or interfering with the methods of conducting business, and yet which would allow the necessary government assistance

without the risk that such benefits might not be shared equally by all the public. Government ownership and operation of industries is not generally favored because, as at present administered, it has seldom proved satisfactory, either in regard to service or in regard to economy and efficiency in operation. Poor service may arise from the indifference of officials in control, or it may be due to the great difficulty which governments often have in getting the funds to provide necessary equipment and extensions when needed. Economy and efficiency in government operation is often lacking because it is usually not very closely related to the success of those in control in attaining their political ambitions. Under the automatic method of regulation, however, the opportunity for investment depends upon rendering service that is satisfactory to the public. The necessary funds for extensions and improvements would be assured because the investing public would know that when the service was demanded by the consumers an acceptable return would be forthcoming, and that their personal investment could be liquidated when desired.

Arbitrary public regulation has also been suggested as a means for adjusting the relations between the ship-owning corporations and the public. But it has been said that the slowing up of industrial operations before the European war was largely due to ill-advised and repressive regulation, and although arbitrary regulation at its best might allow an acceptable return on an investment for the time being, it gives no assurance as to what return would be allowed in the future, and also no distinction can be made between extra profits resulting from unfair or unequal advantages, and extra earnings due to unusual efficiency in management and operation. The result is a perpetual contest between the corporations and the regulating authorities involving great expense and inefficiency on both sides. But the automatic method of regulation by fortification and dilution of securities would accomplish all the results sought by arbitrary regulation in a much more certain and effective manner at a nominal expense, and without any chance, either for crippling the corporations by irresponsible interference with business, or for stealing from the public by corrupting or misleading public officials.

In the management of the shipping business, conferences and pools may be necessary to stabilize charges, provide economical and efficient routing, and to equalize the profits among the different lines. Unless all shipowners were allowed to participate in the advantages of these methods on equal terms such coöperation

might constitute a restraint in trade, but the extra profits due to such restraint in trade would not appear as a reduction in the unit costs of operation, and so under the method of automatic fortification of stock would be added to the earnings that could be shared by the investing public by the purchase of additional shares reissued at par by the government. In this way the cost of fortifying the securities of the corporation would be reduced, and so the public would gain by reduced taxation whatever might be lost by excessive transportation charges—in case this burden did not fall on the shippers or consumers of other countries—and, besides, the transportation charges could under this method be arbitrarily reduced by the Federal Trade Commission without interfering with the profits of the stockholders.

Probably the most serious objection that could possibly be urged against this method of regulation would be that the government commission would have to audit the accounts of the corporation to determine that no stock was sold below par and no funds misappropriated, but the work involved would not be as great as that handled by commissions having control of railroads and public service corporations because no exact valuation of property as a basis for rate-fixing and no estimate of probable earnings would be required.

In conclusion it may be repeated that without public ownership, lease or promotion, or arbitrary regulation, or the uncertainty of unassisted and unprotected private investment a merchant marine could be built up, and the exact amount of government assistance that would be required at any time could be provided by the fortification and dilution of the stock of the ship-owning corporations on demand of the stockholders and the investing public; and, moreover, there would by this method be no risk of creating any special privilege that might not be enjoyed by every citizen of the country on equal terms. At the same time, these results could be accomplished in this manner at a considerably less cost than would be required by direct subsidies or lease of government-owned ships to private corporations or sale of stock to the public at less than cost, and without interfering with the private management of the shipping business or weakening the necessary incentive toward securing the greatest possible economy and efficiency in all the operations of the industry. And, finally, investments in a merchant marine built up along these lines would be taken from the realm of speculation where each business unit is trying to destroy competing business and endeavoring to obtain

advantages which can not be shared on equal terms by other business or the general public, and would be brought into the field of stable securities where capital could be invested in sound industrial developments with the assurance that as long as the business was managed efficiently the yield of the invested capital would hold up to the average requirements of the investment market, and that if more attractive opportunities for investment should appear, the original capital could then be at once withdrawn.

Although there appears to be a marked reaction from the disposition to break up large business combinations by prosecution under the Sherman act, it seems to be generally conceded that, however serious may be the faults of the government control of industry, the country will not return to its former condition of unrestrained combination and speculation. But it is vital to the welfare of the people that close inclusive organizations of industry be not only allowed but encouraged in order to meet the competition that will be forthcoming from the more or less imperialistic industrial organizations that have been developed and will in the future in a much more effective degree be established in the European nations and in Japan and other countries. The test of our democratic institutions will then lie in our ability to provide such organizations without either building up great private monopolies which are subversive of the welfare of the people or of establishing an unwieldy and irresponsible system of intimate management of private business by political authorities. To this end it is suggested that our cherished democratic institutions may be preserved and strengthened and our industrial organizations may be enlarged and coördinated for their highest possible efficiency by applying the fundamental principles of economics and finance in such a way that the unworthy features of private monopoly may be absolutely eliminated by a control that is so automatic in its operation that the governmental functions are exercised only to execute the dictates of the investment market expressed in positive and definite terms that allow no exercise of arbitrary judgment in their interpretation. May it not be that the economic engineering of the future will largely consist in the development and application of such methods?—and so, as a possible step in this direction, the plan of automatic control by government fortification and dilution of securities is suggested for discussion and consideration.

FREDERICK KELLOGG BLUE.

San Francisco.

THE NEW REVENUE ACT

One of the most important congressional measures of recent years and one that establishes precedents that give promise of increasing significance is the new Federal Revenue law which was approved September 8, 1916. Although the importance of this bill was somewhat overcast in popular attention during the closing days of a long session by the ominous railroad situation, nevertheless, it is an act which will take high rank because of its radical departures in order to carry out new and far-reaching national policies on a scale that is unprecedented and that was little dreamed of until two years ago. Not only because of the vast increases in national revenues and expenditures which it involves, nor alone because of the new national policies to which it commits us, is this act of significance, but also because of the reversals in policies to which it commits the Democratic party, the oldest and in some respects the most conservative of our political organizations.

This new omnibus measure, together with the unrepealed parts of the Underwood Tariff bill and of our internal revenue laws, is intended to supply all of our federal revenues and it is the especial purpose of this act to provide additional funds for our new preparedness program, though of course it is alleged by the opposition, and with some justification, that much of the increase is to provide for newly created offices, "pork-barrel" appropriations, and other extravagances of the Democratic party. As is indicated by the titles given below, most of the desired increase is to be raised by higher taxes upon incomes and by new taxes upon inheritances and manufacturers of munitions. There are attempts also to give temporary protection to encourage the development of the infant industry of dye manufacturing, to change the rates of the original Underwood bill so as to help newspapers in the matter of printing paper, and to prevent unfair competition, or the dumping of foreign goods upon our market at the close of the European war. Not least important is the provision for a permanent non-partisan, or possibly a bi-partisan, tariff commission.

When presenting its bill, the Committee on Ways and Means made the following estimate:¹

¹ H. Rept. No. 922, 64th Cong., 1 Sess., p. 2.

Total estimated appropriations for the fiscal year ending June 30, 1917.....	\$1,579,000,000
Deductions:	
Bond issues on account of Mexican situation.....	\$125,000,000
Sinking fund	60,727,000
Postal appropriations, payable from postal revenues	324,723,000
	510,450,000
Balance	\$1,068,550,000
Deduct 5 per cent of the balance, the amount estimated to be unexpended.....	53,428,000
Amount for which it is necessary to provide revenue.....	\$1,015,122,000
Estimated revenue under present laws:	
Customs	\$230,000,000
Internal revenue:	
Ordinary	303,000,000
Income tax	120,000,000
Emergency	41,000,000
Miscellaneous	54,200,000
	748,200,000
Estimated excess of disbursements over receipts.....	\$266,922,000

This committee then estimated that its bill as reported to the House would meet the requirements as follows:

Estimated excess of disbursements over receipts, as per foregoing statement ²	\$266,922,000
Estimated additional receipts under the proposed bill:	
Income tax	\$107,000,000
Estate tax	17,000,000
Munition manufacturer's tax.....	71,000,000
Miscellaneous taxes	2,000,000
	\$197,000,000
Balance to be taken from general fund.....	69,922,000
Total additional receipts required.....	\$266,922,000

In view of certain proposed amendments to the revenue bill and also to appropriation bills, the Senate Committee on Finance made somewhat different estimates as follows:³

Additional revenue required	\$234,243,000
Estimated additional receipts under the pending bill:	
Income tax	\$109,500,000
Estate tax	20,000,000 ^a
Munition manufacturer's tax.....	40,000,000
Miscellaneous taxes	35,500,000
	\$205,000,000
Balance to be taken from general fund.....	29,243,000
Total additional revenue required.....	\$234,243,000

² No. 793, pt. 1, 64 Cong., 1 Sess., p. 2.

³ Estimated for the fiscal year 1917. After this law is in full force it is estimated that this will be increased to about \$65,000,000 per annum.

The principal differences in the bill as recommended by the Ways and Means Committee and passed by the House as compared with that recommended by the Finance Committee and passed by the Senate are five: first, the Senate favored higher rates of the "additional tax" upon the larger incomes; second, and similarly, it favored higher rates upon the larger estates of decedents; third, it favored changing the taxation of munitions from a gross-receipts to a net-profit basis; fourth, it favored the imposition of an additional tax, a kind of a capital-stock license tax for doing business, upon all corporations having a capital stock of a fair value in excess of \$99,000; and fifth, it favored the retention of most of the documentary stamp taxes as provided by the emergency War Revenue act of October 22, 1914. In the main, the Senate amendments prevailed in all of these matters except the last. In this connection it is worthy of note that the Senate Committee estimated slightly smaller receipts from its higher rates on incomes and inheritances than did the House Committee.

The new act as finally approved consists of nine so-called "titles" as follows:

- I—Income Tax.
- II—Estate Tax.
- III—Munition Manufacturer's Tax.
- IV—Miscellaneous Taxes.
- V—Dyestuffs.
- VI—Printing Paper.
- VII—Tariff Commission.
- VIII—Unfair Competition.
- IX—Miscellaneous Provisions.

Title I is a complete new income tax act which supersedes the income tax section of the act of October 3, 1913, popularly known as the Underwood Tariff bill. This new income tax act is not entirely or even mostly new in its essence, and much of the former phraseology remains; but it has been recast, rearranged, modified, and, it is hoped, clarified. The most significant changes are a doubling of the "normal" rate and increases in the "additional" rates, especially those falling upon large incomes. In the Underwood bill, the "normal" rate upon taxable net incomes of individuals and corporations was 1 per cent; in the new law, this rate is 2 per cent.

Following are the rates of the old and new law, for the "additional" income tax, which, it will be remembered, applies to the incomes of individuals but not to the incomes of corporations. The

last three classifications of the new law with rates of 11, 12, and 13 per cent respectively are Senate amendments to the House bill:

<i>Part of income to which applicable.</i>		
<i>Old law</i>	<i>New law</i>	<i>Tax, per cent</i>
\$20,000- 50,000	\$20,000- 40,000	1
50,000- 75,000	40,000- 60,000	2
75,000-100,000	60,000- 80,000	3
100,000-250,000	80,000- 100,000	4
250,000-500,000	100,000- 150,000	5
500,000-any excess	150,000- 200,000	6
	200,000- 250,000	7
	250,000- 300,000	8
	300,000- 500,000	9
	500,000-1,000,000	10
	1,000,000-1,500,000	11
	1,500,000-2,000,000	12
	2,000,000-any excess	13

Various income-tax-paying individuals and corporations, as well as some members of both Houses, made more or less of a fight to lower the exemptions by \$1,000 each. They claimed that the high rates combined with the large exemptions penalize private enterprise and encourage public undertakings by making large sums of money available through investment in tax-free public bonds. Such claimants deplored the notorious inefficiency and the exceeding extravagance of our constantly changing political administrations in city, state, and national governments. Though these critics are undoubtedly biased by their interests, it is certainly true that the income tax provisions put public securities upon a better investment basis than other issues.

Among the strongest of the protestants against the existing exemptions was Mr. Underwood whose name attaches to the old law, and even Mr. Cordell Hull of Tennessee, who fathered the original income tax section as well as this part of the present law, said he would not be very averse to lowering the exemption, not that it would bring in much additional revenue, but to remove unjust prejudice against the law on account of the exemption. Treasury officials estimated that if the exemptions were lowered as proposed, the tax would apply to 200,000 additional persons and afford \$4,500,000 additional revenue. (Congress evidently thought that the additional expense and annoyance of collecting so small an amount in so many dribblets was not economically justifiable, or rather, perhaps, was not politically expedient.) At any rate, there has been no change in the exemption of \$3,000

for an unmarried person or \$4,000 for a married person living with wife or husband. The textual ambiguity of the old law which might allow a husband and wife a combined exemption of \$7,000, remains unremoved in spite of numerous criticisms and doubtless it will have to be covered by rulings in the future as in the past.

The limit for the time of payment of the tax has been advanced from June 30 to June 15 to provide for the collection of all the tax within the fiscal year, which ends June 30, and to make the penalty for non-payment attach within the same fiscal year. It is worthy of note that the great bulk of the income tax is paid at one time, that is, in June, and does not form a continuous stream throughout the year to anything like the degree that the customs and ordinary internal revenues do. (This would be a distinct advantage if quarterly or other payments by the government were especially heavy July 1, but it also has the disadvantage of disturbing the money markets through the withdrawal of so much cash from regular channels at this time.) The amount thus withdrawn in June is lessened to some extent by corporations which adopt their respective fiscal years as the basis of their income tax payments.

Paragraph G (a) of the old law provided that the tax should not apply to labor, agricultural, or horticultural organizations, nor to fraternal beneficiary, religious, charitable, scientific, educational, and other similar organizations; nor should it apply to certain mutual savings banks, building and loan associations, or other specified non-profit-making associations. Experience showed that there were many other similar organizations besides those definitely enumerated, but the Commissioner of Internal Revenue insisted upon a strict interpretation and held that all not specifically named should pay the tax. The new law extends the enumeration to correct this defect.

The old law provides for levying the tax upon *accrued* net income whether it is in the form of dividends, interest, rent or something else, even though such income has not been received. As the present writer pointed out at the time, the carrying out of such a provision is administratively impracticable and even impossible if more than a rough approximation is sought. The new law permits the use of either *accruals* or *receipts*, if the basis selected clearly reflects the income.

For the purpose of calculating the gain derived or loss sustained from the disposition of property acquired before March 1, 1913,

the cash value of such property at that date is taken as the basis. It was upon incomes accruing from this date that the income tax was first collected under the act of October 3, 1913. A ruling of the commissioner under the old law required the inclusion in income of profits however made, but did not allow deductions of losses sustained in transactions that were incidental or not connected with one's business or trade; for example, an occasional real estate or stock exchange transaction that a doctor or a clothier might make. The new law allows the deduction of such losses to an amount not exceeding the profits arising therefrom.

Under the old law, the commissioner had ruled that non-resident aliens might be relieved of the tax so far as it concerned interest on bonds with underlying assets situated in the United States. This ruling really contravened the spirit of the law but it was in harmony with some of the conflicting court decisions relative to the taxing of bonds, and it had the further justification of encouraging the investment of foreign capital. Of course, this encouragement was by just so much a discrimination in favor of the foreign as opposed to the domestic investor. The new law definitely does away with the ruling and puts the non-resident alien bondholder on the same footing as the resident. Such banks as the National City Bank of New York claim that this is unwise as it will increase the withdrawal of foreign investments and check new commitments and thus make more difficult the holding of gold reserves in this country after the close of the war. It will be a direct blow, also, at New York's ambition to become the world's money market.

Perhaps no feature of the income tax law has caused more unfavorable criticism than the stoppage-at-the-source provision, which throws much of the burden of collecting the government's revenues upon banks, trust companies, corporations, and other agents. The taxpayer also is injured by being deprived of his money, usually several months and some times over a year, before the government gets it from the withholding agents. This means that he stands the risk of the agents' solvency and that he loses the interest on his money in the meantime, though the agents get the advantage of his risk and loss to compensate them for their trouble. To remedy these defects, considerable pressure was brought to bear a year or more ago to substitute information-at-the-source for stoppage-at-the-source and to pay some of the most heavily burdened withholding agents for their services. Although

it seemed probable at one time that these suggestions were among those most likely to be adopted when the law was revised, such has not been the case, probably because of the inherent difficulties and also because of the pressure of other matters upon Congress.

(The new law does not remove the discrimination against individual incomes received in the form of corporate dividends, and it still retains the phraseology which requires the double or multiple taxation of holding companies. Little sympathy need be wasted because it does not change the provision to relieve corporations in the matter of their old guaranteed "tax-free" bonds, though it may be admitted that, due to the lack of concern on the part of the owners of these bonds, the corporations have to pay taxes on more bond interest than the law makes necessary if the bondholders cared to take the trouble to save the corporations this money by reporting their allowable deductions and exemptions.

The revised law seems to have made no attempt to provide against the double taxation of both resident aliens and non-resident citizens; it does not introduce the principle of differentiation between funded and earned incomes, as is common in most other countries, and it still retains the monetary conception of income, taking no account of such income as farm produce and house rent when consumed by the producer and owner respectively. It is probably administratively justifiable to postpone the amendment of these matters, especially the matter of differentiation which is accomplished in essence by other provisions of this and other tax laws.

Aside from the increase in rates, the revision makes no great changes of substance. Practically all of the changes that are made are for the better and represent a natural development following administrative experience. The changes in form are much more noticeable and extensive. The arrangement of the old law was unfortunately haphazard and unsystematic; references were unnecessarily difficult, various terms and phrases were ambiguous, and there was a looseness in the use of even technical terms that was very confusing. The recast law is a great improvement in regard to these matters.

Title II, the Estate Tax, is an entirely new addition to our existing federal revenue system. It is true that we had federal inheritance taxes to meet the needs of the Civil and Spanish-

American wars, but they were short-lived. The Payne-Aldrich Tariff bill of 1909 included a provision for an inheritance tax, but by this time many states had such a tax for state purposes. They made such a protest against the federal government's encroaching upon this field, and the western demand for an income tax was so great, that the inheritance tax provision was dropped and, instead, a corporation tax was substituted and an amendment for a federal income tax submitted to the states.

Since that time the inheritance tax has been even more generally adopted by the several states, until now thirty of them have such taxes on both direct and collateral heirs and twelve others upon collateral heirs only. There was some of the former state opposition in evidence this year, but it was less influential and did not have the vigorous support of the National Tax Association as before. Besides, this measure was being advocated by the party which assumes especial prerogatives in the guarding of state rights.

It was pointed out by the Ways and Means Committee that state inheritance taxes really fail to yield much revenue, the total for the 42 states being only \$26,470,964 in 1913 and \$28,217,736 in 1915, as compared with \$132,000,000 for Great Britain in 1914. It is estimated, as noted above, that the new federal estate tax will yield \$20,000,000 this fiscal year (1917) and \$65,000,000 after the law has been in operation a few years.

The tax is imposed upon the transfer of the entire net estate of every decedent, whether a resident or a non-resident of the United States. It is to be noted that the tax is upon the transfer, rather than upon the estate as such; that it applies to the entire estate (less deductions and exemptions) rather than to the separate shares of the legatees; that there is no differentiation between collateral and direct heirs; and that it applies only to the amounts by which such estate exceeds \$50,000. The taxable "net estate" is defined as the gross estate, less certain deductions for debts, administrative expenses, losses, etc., and also less an exemption of \$50,000 for residents of the United States. Non-residents are to be allowed exemptions and deductions in proportion to the parts of their estates that are situated without the United States, provided they furnish the required information.

The rates of the new estate tax are as follows, the last five classifications with their respective rates being additions which the Senate made to the House bill:

Amount of "net estate"		Tax, per cent
\$000-	50,000.....	1
50,000-	150,000.....	2
150,000-	250,000.....	3
250,000-	450,000.....	4
450,000-	1,000,000.....	5
1,000,000-	2,000,000.....	6
2,000,000-	3,000,000.....	7
3,000,000-	4,000,000.....	8
4,000,000-	5,000,000.....	9
5,000,000-	all over	10

Title III, Munition Manufacturer's Tax, is also an entirely new addition to our federal system, but unlike the income and estate taxes, it is definitely restricted to a period ending one year after the close of the present European war. This tax is admittedly in imitation of munition taxes in such neutral countries as Sweden and Denmark and in such belligerent countries as France, Italy, Great Britain, and Germany.

The Ways and Means Committee recommended rates of from 2 to 5 per cent upon gross receipts, but that in no case should net profits be reduced below 10 per cent; the Senate Finance Committee recommended a change of basis from gross receipts to net profits and a differentiation between finished munitions and raw materials entering into the same, suggesting the rate of 10 per cent upon the former and 5 per cent on the latter. The law as adopted levies 12½ per cent upon net profits of such manufacturers without the suggested differentiation and without the 10 per cent minimum net-profit provision. Dynamite, blasting powder, cartridges, and caps used for industrial purposes are excluded.

Title IV, Miscellaneous Taxes, is a revision of the emergency or War Revenue act of October 22, 1914, and has to do with taxes on liquors, tobaccos, amusements, brokers, and corporations. The tax of \$1.50 per barrel upon beer, ale, and similar liquors is retained; the tax on still and artificial wines is changed by graduating it according to alcoholic content, reaching 25 cents per gallon on that containing over 21 per cent alcohol as compared with a maximum of 8 cents under the former law. The revision classes wine containing over 24 per cent of alcohol as distilled spirits and makes it taxable accordingly, whereas, the former law made such wine forfeitable to the United States. The rate upon sparkling wines, cordial and similar compounds is reduced from

5 cents to 3 cents per half pint, and a new provision is added taxing artificially carbonated wine $1\frac{1}{2}$ cents per half pint.

There is a reclassification of the taxes upon the manufacturers of tobacco, cigars, and cigarettes, so that the new taxes are more nearly proportional to the quantities manufactured. For example, under the old law, a manufacturer of tobacco paid \$300 tax whether his annual sales were 1,000,000 pounds or 4,999,999 pounds; under the new law, he pays 8 cents per thousand pounds or fraction thereof. The new rates are much lower on the larger manufacturers.

The taxes upon various classes of brokers, as well as taxes upon amusements, are practically unchanged except that in towns of less than 5,000 population the rates upon theaters and similar places are reduced by half.

The old law authorized a tax of \$1 for each \$1,000 of capital employed by banks. Instead of this, the new law imposes a special excise tax of 50 cents per \$1,000 fair value of capital stock upon every corporation, insurance company, or other association having a capital stock represented by shares, except that the legal reserves of insurance companies are not to be included and an exemption of \$99,000 is allowed each corporation or company. Munition manufacturers are not subject to both this tax and the munition tax (Title III), but are subject to the one of the two which yields the greater revenue to the government.

The new law repeals the taxes upon telegrams and telephone messages as well as the documentary stamp taxes of the 1914 law, such as those upon bonds, notes, stock certificates, conveyances, freight bills, parlor car seats, berths, etc.

Title V, Dyestuffs, is a revision of certain paragraphs of the Underwood act and is an attempt to give temporary protection to encourage the domestic manufacture of dyes. The Ways and Means Committee took particular pains to deny the adoption of Republican protectionism with respect to this part of the law, saying that "The committee has decided, like Great Britain and Japan, that this war anomaly as it affects dyestuffs can only be dealt with in a manner that under normal conditions would not be wise, justifiable or necessary."

It is pointed out that when the war began we had only six factories with 400 operatives manufacturing coal-tar colors to the amount of 3,300 short tons annually as compared with an im-

portation from Europe of 25,700 tons, 22,000 tons being from Germany. Over \$2,000,000,000 worth of American manufactures, including all the manufactures of silk, cotton, wool, paint, and wall-paper, are annually dependent upon these dyes. "The real consumers are these and similar industries. They ask for increased rates upon these dyestuffs. They declare they are willing to pay a high tariff in order to help create a dyestuff supply in this country, and do not ask for an increase in the tariff rates upon their finished products." The present writer assumes that this part of the law as drawn is an honest attempt to accomplish the professed purpose, but he is not well enough versed in the chemistry of dyestuffs to discover all possible jokers that might be hidden in the formidable lists of chemicals as contained in the new law.

A very unusual and interesting provision of this "title" of the law, and one which involves a principle which the writer believes might be applied with profit to other tariff schedules, is that, after five years of this special protection, the rates are to be taken off in five equal annual instalments, but if at the expiration of five years from the passage of this act, the President finds that domestic production is less than 60 per cent of domestic consumption, then these special duties shall no longer be levied. In other words, this infant may expect nursing for five years; if it is then promising, it will be weaned gradually and encouraged to shift for itself; but if nursing and time bring no adequate development, it will be exposed to the elements.

Title VI, Printing Paper, puts on the free list printing paper valued at 5 cents or less per pound. The old law made 2½ cents the basing point. The recent rise in the price of paper had made much of the importation dutiable, contrary to the intention of the Underwood bill.

Title VIII, Unfair Competition, prohibits the dumping of foreign goods in the United States with the intent of injuring or destroying domestic industries, and it imposes a double duty upon goods imported under agreement that the importer or others shall use these goods exclusively. It also gives the President large discretionary powers of retaliation against belligerents and others who discriminate against American products, vessels, or firms. Prohibition of imports, detention of vessels, and the use of our

⁴ Ways and Means Committee, H. Rept. No. 922, 64 Cong., 1 Sess., p. 8.

military forces, are among the measures authorized. This feature of the law is fraught with grave possibilities and, consequently, puts heavy responsibilities upon the President. It is intended especially as a weapon to use against Great Britain's interference with American commerce. Time alone can prove its efficacy.

Title IX contains general, incidental, and irrelevant provisions which do not justify other comment in this connection.

Title VII, Tariff Commission, provides that the President shall appoint a commission of six members, not more than three of whom shall be of the same political party and defines its duties and powers as follows:⁵

Sec. 702. That it shall be the duty of said commission to investigate the administration and fiscal and industrial effects of the customs laws of this country now in force or which may be hereafter enacted, the relations between the rates of duty on raw materials and finished or partly finished products, the effects of ad valorem and specific duties and of compound specific and ad valorem duties, all questions relative to the arrangement of schedules and classification of articles in the several schedules of the customs law, and, in general, to investigate the operation of customs laws, including their relation to the Federal revenues, their effect upon the industries and labor of the country, and to submit reports of its investigations as hereafter provided.

Sec. 703. That the commission shall put at the disposal of the President of the United States, the Committee on Ways and Means of the House of Representatives, and the Committee on Finance of the Senate, whenever requested, all information at its command, and shall make such investigations and reports as may be requested by the President, or by either of said committees or by either branch of the Congress, and shall report to Congress on the first Monday of December of each year hereafter a statement of the methods adopted and all expenses incurred, and a summary of all reports made during the year.

Sec. 704. That the commission shall have power to investigate the tariff relations between the United States and foreign countries, commercial treaties, preferential provisions, economic alliances, the effect of export bounties and preferential transportation rates, the volume of importations compared with domestic production and consumption, and conditions, causes, and effects relating to competition of foreign industries with those of the United States, including dumping and cost of production.

Sec. 705. That upon the organization of the commission, the Cost of Production Division in the Bureau of Foreign and Domestic Commerce shall be transferred to said commission.

The first commissioners are to be appointed for two, four, six, eight, ten, and twelve years, respectively, and their successors for

⁵ Act of Sept. 8, 1916, Title VII, Secs. 702-705, pp. 46-47.

terms of twelve years. Their salaries are to be \$7,500 and they are authorized to appoint a secretary at \$5,000. A permanent annual appropriation of \$300,000 for establishment and maintenance is authorized.

The creation of this commission and the protection of dyestuffs was fought by Mr. Underwood⁶ and others who quoted the fathers to prove that such action was contrary to the long-established principles of the Democratic party, and opposition members of both Houses got no little satisfaction in twitting the converts to Republicanism. It is true that Democratic politicians and platforms have said much about the unconstitutionality of all tariffs other than those purely for revenue purposes as well as about the inconsistency of appointing a tariff commission when disavowing protection. This claim of unconstitutionality of protective tariffs, even as an ancient Democratic doctrine, is not very convincing in view of the actions of Madison, Jefferson, and others of the fathers; and if it were, so much the worse for the party principles. A tariff commission, as a permanent body, with the powers and duties as prescribed in this bill, is inconsistent with absolute free trade, but it is not entirely inconsistent with a program of revenue tariffs, for the latter practically always involves incidental protection and other industrial effects. Nor is a commission inconsistent with a policy of gradual change from protection to free trade where an attempt is made to minimize the shock of readjustment.

The two tariff commissions which we have had heretofore were rather partisan, especially the one of 1882, and Congress disregarded the findings of both in enacting its legislation, though it is true that, despite the criticism and outward contempt shown by the Democrats for President Taft's commission, nevertheless, these same Democrats seem to have made extensive and profitable use of its findings.

At this writing, the commission has not been appointed, though President Wilson has promised that it will be before the election. If it is composed of properly qualified men, and if Congress will give it a fair chance, despite changes in party ascendancy, it ought to be able to give Congress data for scientific as opposed to haphazard tariff making, and the same data can be used for the forming of a more intelligent public opinion upon tariff questions. It is not likely to take the tariff out of politics; the most

⁶ See *Congressional Record*, vol. 53, no. 211, pp. 15306-15318 *et passim*.

that can be hoped, perhaps, is that it will furnish adequate and reliable data as a basis for action, but we can not expect nationwide unity on tariff policies so long as the economic interests of different sections and classes are so diverse.

The various movements of the sponsors of this bill upon its passage through both Houses of Congress threw many interesting side lights upon Democratic party policies. There was much uncertainty as to just how much preparedness the party was prepared to prepare for; there was also some question as to how much "pork" could be carried off without getting caught, or at least, without causing too much odor and outcry; and furthermore, the avowed adoption of protection to dyestuffs and the creation of a permanent tariff board involved the "eating of much Democratic crow," a delicacy that is less tempting to most politicians than that of the porcine variety.

As a matter of fact, the dyestuff protection and the tariff board are more inconsistent with the teachings of false, even if numerous, Democratic prophets than with the true principles of that party, if we understand them aright. The other main features of the bill are characteristically Democratic in two respects at least: first, in abandonment of the tariff even as a source of revenue, although great increases of funds are called for; and second, in their pronounced trend towards "equalitarianism." More and more is privileged protectionism to be undermined front and rear; more and more is great wealth, especially easily gotten war-made wealth, to be made to disgorge and to share its gains by lifting the burdens of government and of government subsidies from the shoulders of the great consuming masses. It is not probable that this will be the end of this equalitarian movement. It does not seem to the present writer that this bill goes too far in this direction, though he can easily see that it is not going to be smooth sailing ahead forever.

ROY G. BLAKEY.

University of Minnesota.

STATE AND LOCAL TAXATION OF BANKS

Federal legislation at the time of the Civil War placed great restriction upon the freedom of the states in the taxation of national banks and, indirectly, of all banking institutions. As a result, bank taxation has followed lines quite different from taxation of other corporations and now shows more uniformity of method. Serious difficulties still remain. But the point has been reached where agreement upon a satisfactory system seems quite possible. Since this is so, the problem of bank taxation is worthy of special attention.

Banks were among the earliest corporations established, and some of the very first laws providing for special taxes upon corporations apply to banks. The first state law imposing a special tax on banks was passed by Georgia in 1805 and placed a tax of $2\frac{1}{2}$ per cent upon the capital stock of banks and $\frac{1}{2}$ of 1 per cent upon their note circulation. Taxes on the capital stock of banks were imposed by New Jersey in 1810 and by Massachusetts in 1812. Pennsylvania in 1814 introduced a tax based upon the dividends or net profits of banks at the rate of 6 per cent, raised in 1824 to 8 per cent. Other states followed with special methods of taxing banks, the most popular one being the tax upon capital stock, only a few states using the tax on dividends. Most of the states still clung to the old-fashioned general property tax upon all the property of the banks. This was the situation down to the middle of the nineteenth century.¹ The whole course of events was then changed by the legislation of the Civil War.

In 1862 Congress established the national banking system and in the act of 1864 provided for certain federal taxes on national banks, which were to be in lieu of all existing taxes upon such banks.² The act goes on to specify, however, that the shares of stock in national banks may be taxed as personal property of the owners under the authority of the states in which the banks are located.³ This provision has remained in force until the present day with only slight changes. The state legislatures are at liberty to determine the method of taxing the shares of national banks subject only to two restrictions; namely, that the taxation must not be at a higher rate than is imposed upon other moneyed capi-

¹ Cf. Seligman, *Essays in Taxation* (eighth ed.), pp. 151-161.

² U. S. Revised Statutes, sec. 5214.

³ *Ibid.*, sec. 5219.

tal, and that the shares owned by persons residing outside the state must be taxed only at the place where the bank is located. The real estate belonging to national banks is also expressly subject to state and local taxation the same as other real estate.

This legislation has had a profound effect upon the history of bank taxation. In the absence of such a law it is likely that the taxation of banks would today present the same diversity and confusion as is seen in the taxation of other kinds of corporations. Under the influence of this law, however, there is greater uniformity today in the taxation of banks than in any other class of corporations.

The federal statute regarding the taxation of banks has been frequently interpreted by the courts, until at the present time there can be little question as to its exact meaning.⁴ The term "other moneyed capital" has been so interpreted as greatly to restrict its meaning. It has been held to include only other taxable moneyed capital.⁵ The fact that certain moneyed capital is entirely exempt from taxation will not stand in the way of the taxation of capital invested in national banks. Furthermore, it has been held that the term is restricted to capital competing with national banks.⁶ Under the New York statute it was held that trust companies were not competitors of national banks.⁷ This appears to be scarcely a tenable position, however, and there is reason to believe that it might be altered.⁸ The courts have

⁴ For a valuable digest of the decisions down to 1906, cf. *Report of the Commission on Revenue and Taxation of California, 1906*, pp. 230-235. The list of references in the California report is so full that reference is made in this article only to a few of the leading cases prior to 1906. Cf. also Judson, *The Power of Taxation*, ch. IX, Taxation of National Banks.

⁵ *Van Allen v. Assessors*, 3 Wall. 573; *People v. Commissioners*, 4 Wall. 244.

⁶ *Mercantile National Bank v. New York*, 121 U. S. 138, and numerous later decisions. Cf. California report, *op. cit.*

⁷ *Jenkins v. Neff*, 186 U. S. 230.

⁸ Under the New York law, trust companies are now taxed by exactly the same method as national and state banks except that the tax is assessed to the trust company by the state instead of to the individual shareholders. See the description of the New York law below. The question is therefore no longer of practical importance. There is reason to believe, however, that if the state law should seek to make a clear discrimination in favor of trust companies the present attitude of the Supreme Court might be modified. In the decision of a recent case (*People of New York ex. rel. Amoskeag Savings Bank v. Purdy*, 231 U. S. 373), the court referred to trust company stock in such a way as to imply that it was "other moneyed capital" in the sense of the federal statute. The point was not material to the issue in this case, however.

clearly held that savings banks and building and loan associations are not to be regarded as competitors of national banks;⁹ special favors to such institutions therefore will not invalidate the taxation of national banks. The term, in brief, seems to include practically only capital invested in the stock of other commercial banks and (probably) trust companies, and money in the hands of individuals employed in a manner similar to the employment of bank capital. The restriction that the taxation of national bank stock shall not be at a greater rate than that of other moneyed capital has been held to apply not only to the tax rate but to the assessment as well.¹⁰ In other words, equality in tax burden is required. The decisions have also made clear that no property belonging to national banks may be taxed except real estate.¹¹ It has also been held that, even though the taxation of real estate together with the taxation of the total value of the shares of stock involves double taxation, this is no violation of the statute.¹² It is possible, therefore, to tax the entire value of all the capital stock of a national bank and in addition impose a tax upon its real estate, provided only that the same method is applied to other forms of moneyed capital. No deduction need be made from the valuation of the shares on account of investment of the capital in property either elsewhere taxed¹³ or exempt from taxation, as United States bonds.¹⁴ The law permits the state to require the bank to pay the entire tax upon its shares of stock.¹⁵ This does not make it a tax upon the bank; the bank is assumed to be acting as the agent of the stockholders and has reserved the express right of charging the tax against each stockholder with a lien upon the dividends and shares of stock as security.¹⁶

The result has been that the states are practically restricted to

⁹*Davenport Bank v. Davenport Board of Equalization*, 123 U. S. 83; *National Bank of Redemption v. Boston*, 125 U. S. 60; *Mercantile National Bank of Cleveland v. Hubbard*, 98 Fed. Rep. 465.

¹⁰*People of New York v. Weaver*, 100 U. S. 539.

¹¹*Rosenblatt v. Johnston*, 104 U. S. 462.

¹²*Peoples National Bank of Lynchburg v. Marye*, 107 Fed. Rep. 570.

¹³*Pacific National Bank of Tacoma v. Pierce Co.*, 20 Wash. 675.

¹⁴*Mercantile National Bank v. New York*, 121 U. S. 138; *Home Savings Bank v. Des Moines*, 205 U. S. 503; *Hager v. American National Bank*, 159 Fed. Rep. 396.

¹⁵*First National Bank v. Kentucky*, 9 Wall 353; *Merchants and Manufacturers National Bank v. Penn.*, 167 U. S. 461.

¹⁶*Merchants and Manufacturers National Bank v. Penn.*, 167 U. S. 461; *Home Savings Bank v. Des Moines*, 205 U. S. 503.

one method in the taxation of national banks. Moreover the requirement that there shall be no discrimination against the stock of national banks as compared with other moneyed capital has been so strictly interpreted as virtually (though not expressly) to mean that this method of taxing national banks is legal only in case other banks are taxed in practically the same way.¹⁷ As a result, the method prescribed by federal law for the taxation of national banks has generally been extended by the states to other banking institutions. The old-fashioned taxation of banks on their property under the general property tax has been practically abandoned. Banks are today not generally taxed at all except upon their real estate, which is taxed locally like other real estate, while the shares of stock in banks are taxed as personal property of the owners in conformity with the federal statute relating to the taxation of national banks.

It must not be concluded that the problem of the taxation of banks has been solved. There still remains opportunity for diversity in matters of detail, with serious inequality and injustice resulting. The various methods of taxing bank shares may be conveniently grouped into two classes. (1) Bank shares are taxed by local officers as part of the general property tax. The value of the shares is assessed by local officers and the tax rate is the local rate of the general property tax. (2) The taxation is under a uniform method prescribed by state law. The assessment is uniform throughout the state and usually determined by a state officer or board. The rate also is generally uniform, though it is not always so, and several methods of determining it are in use.

In the majority of the states, taxation of bank shares is still a matter of local administration. The local assessor determines the value of the shares just as he assesses other property under the general property tax. The assessment is relatively easy, since the banks may be required to furnish the necessary facts, including a list of stockholders with their residences and the number of shares held by each. Nevertheless the assessment is practically at the personal discretion of the assessor, and a confusing variety of rules and methods has resulted.

In most states the law requires that all property be assessed at its full cash value. In seeking to arrive at this value some assessors try to determine the market value of shares from available records of sales. In other cases the book value is taken; that is,

¹⁷ Cf. California report, *op. cit.*, p. 229.

the sum of capital, surplus, and undivided profits. Some assessors take capital only, paying no attention to surplus and undivided profits. In Colorado the state tax commission recently undertook to fix the value of bank shares by taking capital, surplus, average undivided profits for the year, and 4 per cent of the total deposits. A Wyoming law of 1913 provides that bank shares shall be assessed on their par value plus the surplus and undivided profits in excess of 50 per cent of the capital. In North Dakota banks are assessed on the capital, surplus, and undivided profits, less an amount equal to 5 per cent of the loans and discounts, on the theory that banks may fairly be allowed to assume such a shrinkage in their assets.¹⁸

To add to the confusion, the values thus determined are frequently reduced by a certain percentage in recognition of the prevailing under-assessment of other kinds of property. The basis of assessment varies all the way from 100 per cent down to 25 per cent or less. In most cases the value of the shares of stock is reduced by deducting the value of real estate assessed to the bank.

Without going into further details, it is clear that inequality and injustice must result from this method of taxation. The greatest inequality between banks, even in the same state, is an inevitable result. For example, it is reported that in Kentucky the state board of assessment values bank stock at 80 per cent of the capital, surplus, and undivided profits, but local assessment in each of the 120 counties is at the personal discretion of the county assessor, with the result that assessment is anywhere from 60 per cent up to 100 per cent of the capital, surplus, and undivided profits. In addition there are city assessors, so that cases are on record of a bank assessed at 80 per cent of its book value for state purposes, 70 per cent for county purposes, and 100 per cent for city purposes.¹⁹ A study of bank assessment in Montana indicated that for the year 1912 assessments in various counties

¹⁸ For complete details the student must consult the statutes of the several states. For brief summaries of the tax systems of all the states, cf. U. S. Census, *Wealth, Debt, and Taxation, 1913*, vol. I. Much useful information is contained in the reports of state tax commissioners, boards of equalization, bank commissioners, etc. Cf. also numerous articles in *Proceedings of the National Tax Association*, especially Paton, "State taxation of banks," vol. VII, pp. 315-341, and "Report of committee on taxation of banks and financial institutions," vol. V, pp. 313-324.

¹⁹ Paton, *op. cit.*, pp. 329-330.

varied from 18 per cent to 77 per cent.²⁰ The inequality caused by unequal assessment is of course intensified by the variety of local tax rates.

A comparison between bank stock and other kinds of property, shows an injustice perhaps even more flagrant. With the information at his disposal it is an easy matter for the assessor to arrive at the full value of bank stock. Evasion and under-assessment are practically impossible except with the consent of the assessor. In the case of other kinds of property evasion and under-assessment are the rule. Even where some attempt is made to scale down the value of bank stock, the process is seldom if ever carried far enough to produce justice. Cases have been reported in Illinois of banks assessed on their full book value and farm lands at 20 per cent. An inquiry made in Missouri in 1911 showed instances of bank stock assessed two or three times as heavily as other forms of property. In some counties live-stock was assessed as low as 15 per cent, merchandise 20 per cent, real estate 10 per cent, but in only one county was bank stock assessed at less than 50 per cent. It is said that in some counties of Minnesota 60 per cent of the entire personal property tax is paid by banks and that in some of the cities of Wisconsin banks pay from 15 to 30 per cent of the total personal property tax. At one time the board of equalization of New Mexico officially recommended to the county assessors that all property be returned at actual cash value and that the assessment be 50 per cent of this valuation for bank stock and 35 per cent for real estate and personal property. It is claimed that in North Carolina real estate is valued at from one tenth to one half of its actual value, whereas bank stock is frequently assessed at a higher value than that at which it could be sold. In North Dakota it is reported that real estate and personal property are assessed at from 15 to 25 per cent of their value, while bank stock is assessed all the way from 25 to 70 per cent, according to the personal inclination of the county officials.²¹

There can be no doubt that as a general rule the assessment of bank stock is very much nearer actual value than that of other personal property or even real estate. Since bank stock must bear the regular rate of the general property tax, it is obvious that it bears an unjust burden of taxation. That local taxation of bank

²⁰ *Ibid.*, p. 332.

²¹ For further details of these and similar instances, *cf.* Paton, *op. cit.*

stock is flagrantly unjust as between different banks and as between bank stock and other kinds of property can not be questioned. This method might be dismissed with summary condemnation were it not for the fact that it is the method actually employed in many states and that attempts to remedy its injustice are being made which deserve critical analysis.

The remedy nearest at hand is obviously to require the assessor to scale down the value of bank stock so as to make it correspond with the prevailing under-assessment of other kinds of wealth. We have seen that assessors have sought to secure some measure of justice in this way. In many states the bankers have offered this as their suggestion for reform. The bankers of Indiana expressed themselves as fairly well satisfied when a uniform rule of assessing bank stock at 75 per cent of the capital, surplus, and undivided profits was adopted. Likewise in Iowa the bankers appeared to be fairly content with a rule of 20 per cent of actual value. In Missouri a committee of bankers has devoted itself to urging the state board of equalization and the various county boards to reduce the basis of assessment upon bank capital and has succeeded in obtaining slight reductions. In Kentucky the bankers succeeded in persuading the state board of equalization to cut the assessment of bank shares down to 80 per cent of capital, surplus, and undivided profits. In Nevada the state bankers' association presented the argument that "undivided profits can not be considered a fixed investment, but rather a fund to meet expenses and such losses as the bank may sustain in the conduct of its business, and that to a certain extent the surplus fund should be considered in like manner." As a result the state tax commission agreed to eliminate undivided profits and assess only 75 per cent of the surplus. The economist will feel more sympathy with the result than with the argument by which it was obtained.²²

There is little reason to hope that justice will be secured through the attempt to scale down the assessment of bank stock. The most that can be expected from this remedy is a palliation of the evil. The principal reason why bank shares are assessed at their true value is that it is so easy to ascertain the true value. Other property is often under-assessed on account of the difficulty of knowing what its value actually is. In most states the law positively requires the assessment of all property at its full value. Although much property is not actually so assessed, the under-

²² For further details regarding these and other examples, *cf.* Paton, *op. cit.*

assessment is done more or less furtively and is not openly admitted. In the case of bank stock, however, it is practically impossible to put in any value except the real one without openly admitting an intentional under-assessment.

Some states, it is true, have seen this difficulty and have recognized in their statutes the prevailing under-assessment and required that bank shares be entered at values corresponding to the assessment of other kinds of wealth. In other states the same result has been accomplished by administrative action of tax commissioners or boards of equalization, and of course the local assessors exercise some discretion in the same way. Examples have been given above. In none of these cases, however, is more than a compromise probable. Neither by statute nor by administrative discretion is it likely that the full extent of prevailing under-assessment will be openly recognized. The result is to decrease somewhat the injustice against the banks, but not to remove it.

Justice might be obtained by the opposite process; namely, by raising the assessment of other kinds of property up to full value, a process which would, of course, soon be followed by a lowering of tax rates. This result would be eminently desirable from every point of view. That it is likely ever to be generally accomplished is open to grave doubt. The whole history of the general property tax has shown overwhelming forces leading to under-assessment of property. If these motives could be counteracted and all property actually assessed at its full value, one of the greatest difficulties of the tax would be removed. Under the American general property tax in anything like its present form the motives for under-assessment are likely to remain too strong.

In short, the difficulties in the taxation of bank stock under local administration are inherent in the general property tax itself, and attempts to bring relief by securing under-assessment of bank stock or full value assessment of other kinds of wealth are bound to be futile, being able at the best to accomplish only a slight palliation of the present injustice.

We have now to consider the taxation of bank stock under methods prescribed by state laws which require uniformity throughout the state. Here the administration is generally in the hands of state officers, although the returns may be distributed either to the towns of residence of the stockholders or to the towns where the several banks are located, or kept by the state. The two important problems here are the basis of assessment and the rate.

Of the various methods of valuing bank shares two are of special importance and deserve our careful examination. Shares of stock in banks may be valued for purposes of taxation either at their market value or at their book value. Under the theory of the general property tax, market value is apparently the logical basis. Our local tax systems are still founded upon the general property tax. The problem is to bring the method of taxing bank shares into the greatest possible harmony with the present taxation of other kinds of wealth. The general property tax assumes that all kinds of taxable property will be assessed at their true or actual value, which is practically synonymous with market value. Justice would therefore seem to require that bank stock be assessed at its market value.

The objections to market value as a basis for assessing bank stock are of a practical nature and arise from the difficulty of finding out what actually is the market value of the shares. There are, of course, many large city banks whose shares are regularly dealt in on the market. The market value is then a matter of public knowledge and there is no difficulty in determining it for purposes of taxation. However, this is the exception rather than the rule. Most bank shares are not regularly bought and sold. Many banks are owned by small groups of men, and the stock is rarely exchanged. When sold it is apt to be by private arrangement between members of the inside group on terms which are not known to outsiders and which even if known might not fairly represent the actual value of the stock. The sales of stock of small local banks are so infrequent as to furnish no reliable indication of the value of the stock. The law requiring an assessment of the market value of stock imposes a very difficult burden upon the officer charged with the duty of assessment. In the majority of cases he is unable to find any quotation of actual market values and is forced to rely upon reports of brokers or statements furnished by the officers of the banks themselves. Ordinarily he has to estimate a fair market value from examination of the balance sheets and earnings of the banks. This introduces the element of personal judgment and is a fruitful cause of argument and dispute with the representatives of the banks, all of which leads to friction, hard feeling, and inefficient assessment.

The argument is sometimes urged that market value, even when discovered, does not always represent the real value of the stock. Stock values are subject to fluctuations upon the market. These

fluctuations may in general be assumed to represent changes in the condition of the bank and therefore in the real value of the shares, but they may also be caused by circumstances entirely foreign to the bank's condition, such as the situation of the money market, etc. It is also held that shares of stock in banks are often sold at prices far above their real value, due to sentimental reasons. There is great danger of exaggerating the importance of these objections, but such weight as they have simply strengthens the case against the use of market value. The real objection to market value, however, is the difficulty of determining it, and it is this consideration which furnishes the principal argument in favor of the assessment of bank stock at its book value.

Book value is a definite fact, easily determined from the balance sheet of any bank. The value of a share may ordinarily be determined by adding the capital, surplus, and undivided profits and dividing by the number of shares. This method of valuing bank shares does away with the difficulties inherent in the market value basis. In the place of uncertainty, dispute, and guess work, it substitutes a certain method, easy of administration. The book value is a definite thing, shown at any time by the balance sheet of the bank, and the room for argument or difference of opinion is reduced to a minimum. The book value is not subject to frequent fluctuations due to the condition of the money market or other external causes.

Certain objections have been raised to the use of book value as a basis of assessing shares of bank stock. In the first place, it is claimed that market value is the only true value, that all other values are more or less arbitrary, and that the real value of anything is the amount a purchaser is willing to pay for it. There is considerable truth in this contention, and it might furnish a valid case against the use of book value were it not for the impossibility of determining market value, already demonstrated.

The question remains whether book value does actually represent the true value of stock or whether it is arbitrary and subject to manipulation. In particular, it is charged that by changing the valuations set upon its assets a bank may make its book value what it pleases. The officers of the bank may write off certain assets and put others in at lower figures so as materially to reduce the book value and evade taxation. While this procedure is of course open to the officers of any bank, it does not appear likely that it would often be availed of to escape taxation. The motives

leading the ordinary bank officer to make as good a statement as he can of his bank's condition will generally be strong enough to prevent the scaling down of book value below the real value of assets merely to save a few dollars in taxation. On the other hand, if the use of book value should lead some banks to write off doubtful assets or reduce assets previously carried at inflated figures, the result would certainly be a desirable one and would not lead to any real evasion of taxes.²³

The only methods of assessment deserving serious consideration are the two that have just been discussed. Certain states have adopted methods departing more or less from these two, but usually with unfortunate results. New Jersey, for example, formerly determined the value by deducting from capital, surplus, and undivided profits the assessed value of real estate and the book value of all non-taxable securities owned by the bank. The latter provision allowed a very great reduction from book value, and many banks were able to show non-taxable securities equal to their total capital, surplus, and undivided profits, so that they paid no tax at all except upon their real estate. In a number of cases banks have been actually ashamed to get off so easily and have permitted an assessment and paid taxes which they knew were not enforceable.²⁴ The somewhat similar experience of California is referred to below. As has been shown, the federal statute does not require the deduction of tax-exempt property or even of property which is elsewhere taxed. There is no reason why such deduction should be allowed.

Some states having assessed the stock at market or book value then proceed to scale the assessment down to a certain percentage. For example, under the Ohio law the state board of equalization assesses the book value and then fixes the assessment at 60 per cent.²⁵ Something of this sort is a necessity for the sake of justice if bank stock is to be taxed at the same rate as other property. A more effective way of securing justice, however, is

²³ Regarding the relative merits of book value and market value, cf. *Proceedings of the National Tax Association*, vol. IV, pp. 391-401; *Report of the Commission on Revenue and Taxation of California*, 1906, pp. 244-247; *Report of the Connecticut Commission on Taxation of Certain Corporations*, 1913, pp. 130-135.

²⁴ Cf. *Report of the New Jersey Board of Equalization of Taxes*, 1910, pp. 19-21, and 1911, pp. 21-22; also *Proceedings of the National Tax Association*, vol. VII, pp. 318-319, 340-341.

²⁵ *Report of the Ohio Tax Commission*, 1908, p. 12.

to make allowance for this in a uniform rate fixed by law. This brings us to the matter of the rate.

There are three ways of determining the rate of the tax on bank shares. First, to impose upon each bank the local rate of the general property tax in the town where it is located. Second, to impose upon the banks a uniform rate equal to the average of the local rates of the general property tax throughout the state. Third, the law itself may prescribe a uniform rate to be imposed upon all banks.

The first method leaves many of the evil results of local administration unremedied, although assessment may be just and uniform throughout the state. The actual burden of taxation will be unequal on account of different local rates. In particular, bank stock, being assessed at practically its full value, will be subject to an excessive tax as compared with other property. The only way to correct this is to make the assessment a certain fraction of the actual value, as is done in Ohio. This can not secure justice for two reasons. It is practically certain that the reduction will not be enough to offset the prevailing under-assessment of other property, and even if this were done on the average, there would remain injustice on account of the varying degree of under-assessment in the different localities.

If instead of a tax on each bank at the local rate there is imposed upon all banks a tax at a uniform rate equal to the average of the general property tax, uniformity is secured for all banks throughout the state. There still remains, however, the excessive burden upon bank stock as compared with other kinds of property, unless this is met by reduced assessment of bank stock to meet the prevailing under-assessment of property. In theory this would be a possibility, but practically there is little reason to expect a reduction sufficient to secure justice.

The only effective way of securing uniformity and at the same time equality as between bank stock and other kinds of wealth is to fix a definite rate low enough to make the tax paid by the owners of bank shares fairly correspond to the burden of taxation placed upon other kinds of wealth. Investigation of this matter has generally led to the conclusion that 1 per cent is a reasonable rate. This is the rate in New York and Connecticut. The California rate was originally made 1 per cent in 1911, but was raised to 1.2 per cent in 1915. The New Jersey rate is $\frac{3}{4}$ of 1 per cent. Pennsylvania gives the banks the choice between a rate of 4 mills upon

book value and 10 mills upon par value of stock. The 4 mill rate is extremely low, and there appears to be no justification for the alternative 10 mill rate, whose chief effect is to cause injustice between large and small banks.²⁶

In addition to the taxation of shares of stock, real estate owned by banks may lawfully be taxed and generally is so taxed. There appears no good reason why local taxation of bank real estate should not continue. It is probably also reasonable to leave the taxation of real estate in the hands of the local officers rather than to attempt to secure any uniform assessment or uniform rate throughout the state.

It is obvious that if the shares of stock are taxed at their full value by a rate which equalizes the burden with that borne by other kinds of wealth, and at the same time local taxation of real estate is allowed, double taxation results. As has been shown, such double taxation is not repugnant to the federal statute. New York expressly permits it and there is little complaint. In strict justice, however, some allowance should be made. Three methods are possible.

First, allow the bank to deduct from the tax paid upon its shares of stock the amount of local taxes paid upon real estate. This is the Connecticut method. It makes the tax on shares of stock measure the total burden of taxation. It produces justice so far as the shareowners are concerned. A difficulty remains, however, in that the banker loses all interest in the assessment and taxation of his real estate, and the door is opened for excessive assessment of such real estate without any protest on the part of the banker, as a result of which the local government may secure more revenue than it is entitled to at the expense of the state revenue.²⁷

A second method is to deduct from the valuation of shares of bank stock the assessed value of real estate, as is done in California. This accomplishes practically the same result as the first method. To a certain extent it is open to the same objection, although there is here some motive leading the banker to see that his real estate is not over-assessed. The local tax rate will normally be higher than the rate fixed for the tax upon bank shares. A banker, therefore, loses more through an excessive valuation of

²⁶ *Proceedings of the National Tax Association*, vol. VI, p. 159.

²⁷ *Cf. Report of the Connecticut Commission on Taxation of Certain Corporations*, 1913, pp. 134-135, 174.

his real estate than he can gain by having that valuation deducted from the assessed value of the shares of stock. To this extent only will he be induced to use his influence against over-assessment of his real estate. There still remains to some degree the same opportunity for the towns to profit at the expense of the state.

The third method is to allow the unrestricted local taxation of real estate without deduction either from the amount of the tax or the assessed value of the shares of stock, but to make the correction by taking the real estate tax into account when determining the rate of the tax upon the stock. It is easy to find the total amount of taxes paid by banks upon their real estate and to make a corresponding reduction in the uniform rate fixed for the tax upon bank shares. This is doubtless the best method. It protects the state revenue, it leaves each banker to safeguard his own interests as against the local assessors, and on the average it places a just burden of taxation upon the owners of bank stock. It may be objected that while the average burden is just, injustice may be done in the case of certain bankers with large holdings of real estate. This objection need not be given much consideration. The ordinary commercial bank should not invest largely in real estate. If a bank does so, it adopts the course because it sees some advantage in it, in which case it should be able to bear the tax burden necessarily involved.

The foregoing analysis would seem to demonstrate that satisfactory results in the state and local taxation of banks are possible under a method whose main features may be briefly summarized as follows.

A uniform tax is prescribed by state law. The tax is upon the book value of the shares of stock, which is obtained by adding together the capital, surplus, and undivided profits and dividing by the number of shares. No deduction need be made on account of property exempt from taxation or elsewhere taxed, with the possible exception of real estate. The rate of the tax is uniform throughout the state and definitely fixed in the law. The exact rate is a detail to be determined according to the circumstances in the given state. It appears that in general 1 per cent is a fair rate. Administration is preferably in the hands of state officers, although satisfactory results are obtainable under local administration. The tax is collected from the bank, acting as agent of the stockholders. The proceeds may go into the state treasury, or be distributed to the towns or counties according to

the locality of the banks or the residence of the shareholders. Real estate belonging to banks is subject to local taxation like other real estate. Allowance for the local tax on real estate may be made in either of the three following ways, stated in the order of preference: (1) by a slight reduction in the rate of the tax upon shares, (2) by deducting the assessed value of real estate from the book value of the shares, or (3) by a deduction of the tax paid on real estate from the amount of the tax on shares. Of course the shares of stock are exempt from taxation in the hands of the owners.

This method, if applied to all commercial banks and trust companies, is in harmony with the federal statute, is certain and effective in administration, and should give substantial justice to all concerned. Some of the states have already approached very close to the method here indicated and others are tending that way. A glance at a few examples will be worth while.

The state of New York furnishes the best example of the method which has been recommended. The present law was enacted in 1901. Previous to that time bank shares were assessed locally. There was no fixed rule for their taxation, which was left to the judgment of the local assessors. An investigation made in 1899 by Mr. Charles Adsit, president of the New York Bankers' Association, showed that the assessment in different parts of the state varied all the way from 10 per cent to 119 per cent of the capital, surplus, and undivided profits. It was also shown that banks were discriminated against as compared with trust companies, the average rate of taxation upon banks being about five times as great as that upon trust companies. Another result was that shares of bank stock were very unjustly burdened as compared with other kinds of personal property. In one city of 13,000 people the banks, with capital of \$250,000, paid three fourths of the total personal property tax, although more than one individual residing in the city owned more than the combined capitals of the banks and yet escaped personal taxation entirely.²⁸

The essential features of New York's present system of taxation are as follows:²⁹ Each bank must report annually to the assessors of the tax district in which it is located, giving a list of its stockholders, their residences and the number of shares of stock owned by each, together with all essential facts regarding its

²⁸ Paton in *Proceedings of the National Tax Association*, vol. VII, p. 316.

²⁹ N. Y. Tax Law, secs. 13, 14, 23-26, 183, 188, 189, 191, 205.

capital, surplus, and undivided profits. Assessment is made by the assessors of the tax district. The shares are assessed to the owners in the tax district where the bank is located, regardless of the residence of the stockholders. The law provides that the value of each share shall be determined by adding the capital, surplus, and undivided profits and dividing by the number of shares. The rate is fixed in the statute at 1 per cent of this assessed value. Owners are entitled to no deduction for debts or other causes. The tax is in lieu of all other state and local taxes on the shares of stock and no state or local taxes are allowed upon the personal property of the banks. The tax is payable to the county treasury and is distributed to the various tax districts in proportion to their tax rates. In paying the tax the bank acts as the agent of the stockholders, from whom it is assumed to collect the amount paid. The bank has a lien upon shares of stock and any other property of the shareholders in its hands for reimbursement of taxes so paid. Real estate belonging to banks is subject to local taxation and no deduction from the value of the shares of stock is allowed on account of taxes on real estate. The rate of 1 per cent is assumed to be enough lower than the ordinary rates of the general property tax so that no injustice is caused by this additional taxation of real estate. This law has given general satisfaction.

New Jersey, after suffering for years under the defective system described above, has now a tax drawn on correct lines.³⁰ The new law is practically the same as the New York method except that the assessed value of real estate is deducted from the value of the shares and the rate is $\frac{3}{4}$ of 1 per cent.

Connecticut taxes banks and trust companies upon the market value of their shares of stock as determined by the state board of equalization.³¹ The rate of the tax is fixed in the state law at 1 per cent. From the amount of the tax thus determined is deducted the tax paid on real estate in Connecticut. The tax is collected by the state and distributed to the towns in which the stockholders reside. The state retains the part paid on shares owned by persons residing outside the state except that in the case of a national bank the tax on shares owned by non-residents is paid to the town in which the bank is located, as is required by the federal statute. The principal defect in the Connecticut system is the market value basis of assessment. Connecticut has ex-

³⁰ Laws of 1914, ch. 90.

³¹ Gen. Stat. sec. 2331, as amended by Acts 1903, ch. 204, Acts 1905, ch. 54; sec. 2332-2335.

perienced in the administration of this law most of the difficulties which have been mentioned above in connection with this basis.

Pennsylvania taxes the shares of bank stock under a state law administered by state officers.³² The basis of valuation is the capital, surplus, and undivided profits. The tax is assessed as to the stockholders but is paid by the banks. Real estate is taxable locally. Banks have the option of paying at the rate of 4 mills upon the above value, or at the rate of 1 per cent on the par value of the stock alone. The tax is in lieu of all local taxation except taxes on real estate. The peculiarities of the Pennsylvania tax are the low rate and the optional feature. There appears to be no justification of the optional rate, and the normal 4-mill rate is about half of the tax paid by banks in other states where a uniform rate is fixed by law.

The state of California has had an interesting experience in the taxation of banks.³³ Until 1910 the state constitution required the taxation of all property in the state under a uniform rule. The law made banks taxable upon all of their property exactly like natural persons. This law was contrary to the provisions of the federal statute relating to the taxation of national banks. At first no serious difficulty resulted as there were very few national banks in the state. During the period from 1890 to 1896 several new national banks were established and a number of state banks went into the national system, the reason being primarily to evade state taxation, since they realized that as national banks they could not be taxed upon their property.

To correct this situation the legislature in 1899 provided for the taxation of shares of stock in national banks in conformity with the federal statute, but further allowing stockholders to make from the amount of their shares of bank stock all the deductions permitted by law to the holders of moneyed capital in the form of solvent credits. Deduction was also allowed for real estate taxed and for all property exempt by law from taxation. At first this system seemed to promise well. Very soon, however, the banks realized that under the deductions allowed they could generally show exemptions exceeding the value of the stock and thus escape taxation entirely. Still worse, the federal courts decided in 1905 that, since national banks were taxed upon their shares

³² Act of July 15, 1897. (P.L. 292.)

³³ *Report of the Calif. Commission on Revenue and Taxation*, 1906, pp. 219-229. The entire chapter on Taxation of Banks in this report, pp. 219-253, is very valuable.

of stock and state banks upon their property, this involved a discrimination against national banks in favor of state banks. It was therefore held that the law was invalid for the taxation of national banks. From that time on national banks were not subject to any taxation whatever except upon their real estate. A few of the national banks, realizing this situation, voluntarily submitted to an assessment which they knew was not legally enforceable and paid a certain amount of taxes. Obviously such voluntary taxation was not sufficient to produce any large revenue nor to equalize the burden of taxation between state and national banks.

During all of this time the taxation of state banks also was unsatisfactory. They were taxable directly upon all their property in the same manner as individuals. Since, however, they were allowed to deduct debts, which included all of their deposits, the principal item of assets, loans and discounts, was very frequently wiped out entirely by the deduction of deposits. Various other items of the banks' assets were incapable of accurate assessment, and, finally, there was a great lack of uniformity in the practice of the local assessors. As a result, some banks practically escaped taxation entirely, others were severely penalized, and the whole system was marked by inequality, uncertainty, and injustice.

In 1905 the whole matter was referred to a special state tax commission. As a result of their recommendations the constitution was amended in 1910 allowing classification of property for purposes of taxation, and in 1911 the legislature enacted a law,³⁴ under which all shares of stock of banks are assessed and taxed to the owners by the state board of equalization in the town or city where the bank is located. The value of the shares of stock is the amount paid thereon plus a pro rata share of the surplus and undivided profits. The tax is in lieu of all other state and local taxes upon the shares of stock and upon the property of the banks except real estate, which is subject to local taxation like other real estate. From the value of the shares, determined as above, is deducted the assessed value of real estate. The remainder is the assessed value of the shares and is taxed annually at a uniform rate of 1.2 per cent. The tax is paid by the bank to the state in behalf of the stockholders. The bank has a lien upon the shares of stock and upon the dividends for reimbursement. With this law California has satisfactorily solved the problem.

Yale University.

FRED ROGERS FAIRCHILD.

³⁴ Acts of 1911, ch. 335, secs. 1, 4, 12 and 18, as amended by Acts of June, 1913 and Jan. 28, 1915.

THE CONTROL OF RETURN ON PUBLIC UTILITY INVESTMENTS

Professor Bauer, in his recent article in this *REVIEW*,¹ seems to maintain the thesis that control of return on investment should be the chief aim of legislators and commissioners rather than the fixing of so-called "reasonable" rates. This main proposition depends upon the following premises:

1. It is not only desirable but also generally possible to establish a simple and uniform basis of valuation.

2. A uniform, "definite rate of return and no more" should be allowed upon the investment as determined by this valuation; and the investors are neither entitled to, nor in reality expect, greater returns.

That a definite and simple basis of valuation is highly desirable, no one can deny: its feasibility, however, is quite another matter. Granting that there were no inherent differences in the various utilities, the past diversities in accounting, management, legislation, and regulation, would make any single rule unfair if not unworkable. While these difficulties have been sufficiently emphasized in the article under consideration, certain other aspects of the question merit further attention.

Though it will doubtless be generally agreed that past excess or deficiency of profit can hardly be considered in a proper scheme of valuation, except indirectly, yet there seems to be an important exception in the case of comparatively new plants. It is true of many, perhaps of most, public utilities, that the business is likely to be carried on for some years at an abnormally small profit or even at a considerable loss. Under such circumstances, even though we may favor the strict regulation of profits, justice to all certainly demands that an addition to the valuation be made, proportionate to the difference between the "reasonable" return to be allowed in the future and the actual return received in the past. In lieu of this arrangement, the only other course to follow would be to allow a higher rate of profit than the usual rate, until stockholders should be recouped for former losses. The reasoning, of course, would not apply to a well-seasoned business, in spite of the fact that there had been losses. However, this exception, with the numerous complications which arise out of it, is sufficient to show

¹"Bases of Valuation in the Control of Return on Public Utility Investments," *AMERICAN ECONOMIC REVIEW*, vol. VI (Sept., 1916), p. 568.

that any high degree of uniformity in practice is difficult of attainment as well as fundamentally unjust.

Again, aside from practical objections, it appears to be logically inconsistent to maintain generally, as Professor Bauer does, that "reproduction cost" should not include land granted by the public and that "net reproduction cost" should not make allowance for enhanced land values. There may be strong arguments in favor of this contention in the case of steam railways; but, so far as the gas and electric lighting industries are concerned—and probably the street railways—the case is different. Why should not land granted by the public be included? True, if the inclusion were made, some companies would have an advantage by so much over others which had to buy their land. But perhaps the promoters of the more fortunate concern secured the grant because of their superior bargaining ability, for which a return can reasonably be allowed. And, furthermore, the people gave the land, not because they hoped to secure lower rates by so doing, but because they expected that it would be to their interests to have the utility installed in their midst, bringing with it a general increase of land values and acting as a stimulus to business of every kind. In all such cases there is a *quid pro quo* which is frequently forgotten. The land granted, having a small primary value, increases in value along with other land in the community.

Viewed from another angle, all the capital that assists in the production of a utility should be awarded its full share of the profits, based upon a fair valuation, no matter what the ancient history of the case may be. The public is under no obligation to grant the land unless it so desires; but once the grant is made it becomes private property, and should be so regarded if the accounting is to be kept straight. Would any one maintain that a return on the value of land used by a municipally owned plant can be disregarded, if we wish to compute what the service *really* costs the public?

So far as enhanced land values are concerned, it is the popular thing to say that society gives the value and should reap any gains which might accrue from this increase. This, however, is only indirectly and perhaps ultimately true. Nor, in final analysis, is it more true of land than of many other instruments of production. The fact is that very frequently the *few* men who have invested their savings in a public service industry have in reality created increased values for the *many* whom that industry serves.

It is hardly accurate to criticise the "net reproduction cost" method—perhaps better called the "present reproduction cost," with depreciation allowance—on the ground that it would "capitalize present high prices" against the public. In all probability a year of *normal* prices would be taken as the standard of valuation, or the average of a series of such years. Nor is a valuation once made unchangeable. Rather, when a new question of rates arises, certain adjustments must be made to meet the changes in methods of production, cost of material, and such things. With a proper system of accounting, these adjustments should entail no great burden.

Regarding the allowance to be made for depreciation, the divergence of opinion is so great and the differences in local conditions are such that definite rules are admittedly out of the question. Under these circumstances the writer fails to see how any uniformity other than the most nominal can be reached either by means of the net reproduction-cost method or the net installation cost method. About all that can be done, if uniformity is insisted upon, is to set a certain safe minimum annual depreciation charge which is to be deducted from the reproduction cost or the installation cost. This procedure would of course give a decided advantage to the better organized plant and to the one in the more desirable locality. Hence there would be no real uniformity after all. The whole question of depreciation, however, is so much up in the air that some consideration might well be given to the theory of the National Electric Lighting Association, which contends that, provided a plant is kept at 100 per cent efficiency, the law should not concern itself about any fixed depreciation allowance. If we could call depreciation by some other name it might not make us so much trouble.

The writer feels that Professor Bauer has, to some extent, overlooked the psychology of the investor—who is in the beginning often something of a speculator—in his repeated assertions that all *that* individual expects is a "fair" return upon his original investment, as represented by conservatively issued securities or by the net installation cost, plus reinvested earnings in either case. The original investor in public utilities has frequently assumed heavy risks, for which he is entitled to more than a mere "fair" return—whatever that may be. At any rate, one who puts his money into public utilities is justified in expecting a high return on his investment, if at the same time the charge for the service

rendered has been proportionately reduced. The fact that monopoly power exists is not so significant as the manner in which that power is used. Under reasonable regulation both stockholders and the public should share the gains.

Is there any good reason why those who invest their capital in public service enterprises should receive a lower rate of return than others who invest in business of the same degree of risk? Any real enhancement of value of the property, from whatsoever cause, should, from the investor's point of view, rightfully increase profits. Would any one deny that a man who buys a house and lot in a city which begins to grow rapidly, has the right to rent or sell at an advanced price? The comparison should not be forced, but it is not so unsatisfactory as might at first appear. *Sacrifice at the time of investment must not be confused with present sacrifice.*

We are left totally in the dark as to what is meant by "reasonable." The broad grounds of "social expediency," the "general welfare," the "common good," and such other "social-ethical" considerations, are, to say the least, very vague. It could not well be otherwise. Such terms are always well sounding and always inconclusive. It is to be feared that, with such criteria to guide us, there would be as many different interpretations of what is "reasonable" as there are different interpreters. *Uniformity* could scarcely survive on such an ideal basis.

In conclusion, Professor Bauer appears to approach dangerously near to circular reasoning when he insists upon "a clear, single basis of valuation" and "a definite rate of return allowed on this amount and no more"—*all in the interests of "the common good."* The vastly significant question of the regulation of profits *versus* the fixing of rates is raised. To be sure, these two things may be different aspects of the same problem. Yet, whenever the first aim of legislators becomes the rigorous regulation of profits, the most important stimulus to individual initiative is taken away. Allowance for past losses in the case of a concern which has had time to "get on its feet" is indefensible; but *the failure to allow a premium for efficiency would be exceedingly disastrous.* The inducement of *probable* high returns has frequently been necessary in order to secure the capital needed to develop the country. The stimulus of *possible* high profits now and in the future is at the very basis of that enterprise which ultimately reduces the cost of service and leads to the advancement of society in general. Let

the dead level of uniformity of profits be introduced, and a premium will be put upon inefficiency, ability will be penalized, capital will seek more profitable fields, service will become inadequate, and prices will tend to remain far higher than they would have been without such "over-regulation." Competition can be kept on a high plane; as even a start as possible can be given; but if the economic race is to be worthy of the name, we must let the best man win!

The rigid regulation of profits is a specious scheme. It is a simple weapon, a popular weapon, and consequently a most dangerous weapon. Ultimately it may become a necessary weapon. But, carried to its logical conclusion, this method of control of the return on public utility investments can lead in only one direction—to the *socialistic state*. Whether or not that would be a desirable outcome is another question.

EDMOND E. LINCOLN.

Harvard University.

REVIEWS AND NEW BOOKS

General Works, Theory and Its History

The Colonization of Australia (1829-42). The Wakefield Experiment in Empire Building. By RICHARD CHARLES MILLS. Studies in Economics and Political Science. No. 44 in the Series of Monographs by Writers Connected with the London School of Economics and Political Science. (London: Sidgwick and Jackson, Limited. 1915. Pp. xx, 363. 10s. 6d.)

The subtitle of this book, *The Wakefield Experiment in Empire Building*, indicates its chief interest to the American reader, and, in fact, to all who are not concerned with the minute details of early Australasian colonization. The student of economics will recall the discussion of Wakefield's ideas in John Stuart Mill's *Principles of Political Economy*. If he is tempted to take Ashley's edition of Mill's *Political Economy* in hand and consult the index and then turn to the references, he will be surprised by the extent of Wakefield's influence upon John Stuart Mill, unless, indeed, he has recently and carefully perused his Mill. It is quite certain that comparatively few present-day economists realize the apparent influence that Wakefield had upon English economic thought. Turning to Mill's discussion of coöperation one finds Mill following the terminology of Wakefield and quoting from him at great length. Mill says of Wakefield that he was the first to point out the disadvantages of a purely agricultural population. Other illustrations could be given.

The economist who studies land policies in Australia and in New Zealand, frequently comes upon the work and influence of Wakefield and is increasingly impressed by his significance in practical affairs and in the formulation of thought in regard to the desirable methods of colonization.

If colonization is properly carried out, it means a satisfactory plan of land settlement; in other words, sound land policies. The present work is, then, a study of land policies, and as such it is most timely. For at last, even in the United States, we are beginning to know that there is such a thing as land policies, and that there is nothing more fundamental than the problem of landed property. We are asking questions like these: How much land shall be private property? how much shall be public property? what limitations shall there be upon private ownership of

land as to area? and as to the rights included in private ownership? The relation of the land to the people and the people to the land is perhaps the greatest economic problem of the twentieth century. The only other problem that could be placed in the same class is the labor problem, but that embraces in part the land problem.

One thing that impresses itself upon the student in the study of the land policies of Australia and New Zealand is their complexity. One does not get very far in the study of land problems anywhere without seeing that no simple formula offers a solution.

The significance of Wakefield is found in his early recognition of the fundamental importance of land policies in the settlement of a new country. He found that, in the past, colonization had been unsystematic and planless, involving evils for the present and for the future. Wakefield emphasized continually systematic colonization. This he wanted to substitute for what he called "mere immigration." Wakefield's system was based upon economic theory. Prosperous colonization could be brought about only by a suitable combination of land, labor, and capital; and he especially emphasized as a necessary condition of prosperous colonization the proper proportion between land and labor. How was such a proportion to be secured? The answer is a simple one. A "sufficient price" should be asked for the land to prevent capital-less labor from immediately taking up land. It was not desired that the capable laborer should be deprived of land ownership, but that he should work for a time for wages and then later on take up land, having accumulated capital. A price just high enough should be asked for "waste lands," meaning thereby chiefly what we call the public domain, to prevent the rapid movement from the old settled portions of a colony to the newer portions. "Combinable labor" was a term frequently used by him.

Speaking of the "sufficient price" Wakefield says that the ideal price would be a just medium . . . occasioning neither superabundance of people nor superabundance of land, but so limiting the quantity of land, as to give the cheapest land a market value that would have the effect of compelling labourers to work some considerable time for wages before they could become landowners. A price that did less than this would be insufficient; one that did more would be excessive: the price that would do this and no more is the proper price. I am used to call it the sufficient price.

The "sufficient price" would avoid the undue dispersion of the population and promote "closer settlement" than would otherwise

take place; and the aim of closer settlement still plays a large rôle in Australia and New Zealand. Jeremy Bentham who became an adherent of Wakefield was strongly impressed by the idea of close settlement and called this principle "the vicinity-maximization or dispersion-preventing principle."¹ J. S. Mill also regarded this as a valuable feature of the Wakefield system.

As another part of Wakefield's program it should be noticed that the price received for the land was to be used as an immigration fund. This immigration fund would constantly bring new labor to the new country. Consequently the settler in paying his "sufficient price" for the land would be contributing to a fund to provide himself with labor for the cultivation of the land. With this feature J. S. Mill was also profoundly impressed because it operated perpetually to take labor from the mother country to the colonies. The system once started, said J. S. Mill, was self-supporting, and its effect "would tend to increase in geometrical progression," for each new immigrant added to the funds for augmenting the labor supply of the colony.² Wakefield's theory then contemplated benefit to the mother country by enlarging what he called the "field of employment" and a benefit to the new country by its proper settlement. Wakefield laid emphasis upon the quality of the settler, and it is quite probable his influence is seen now in New Zealand in the care taken to secure a high grade of immigration.

Wakefield seems to have been a talented agitator, and leaders of economic thought gradually came under his influence to an increasing extent. There is reason to believe that Wakefield's theories and plans are now finding a growing appreciation. So far as the present writer is able to discover the book is carefully and accurately written.

RICHARD T. ELY.

University of Wisconsin.

Second Thoughts of an Economist. By WILLIAM SMART. With a biographical sketch by THOMAS JONES. (London: Macmillan and Company, Limited. 1916. Pp. lxxix, 189. \$1.40.)

"Surely it is a painful confession of failure if a man who wishes 'to spend a week with God' has to leave his business and go 'into a retreat.'" In these words William Smart voiced his dissatisfac-

¹ Mills' *Colonization* etc., p. 153.

² Mill's *Principles of Political Economy*, Ashley ed., p. 973.

tion with the present world. Nearly all life is now included in the economic life. Despite the enormous increase in wealth due to the efficiency of this economic life, increase of population and growth of appetite have continued the great evil of inequality and many still lack the income necessary for decent living. But worse than the distribution of wealth is the "distribution of work." Few have work which prepares for another world, if there be one, or which makes this life worth living. There should be work whose "reward is in the doing"—work for everyone which will make a man of one. In noble words of discontent in this his last utterance Smart revoices that protest, with which as a follower of Ruskin he began his career as an economist, against the purely economic judgment. How can the change be made by which we may bring it about that "All wealth is Life"? The answer is that implicit in Professor Smart's previous writings. The rewards of the different parties engaged in production are not arbitrary but determined by deserts. The amazing effectiveness of the present industrial order is due to private property and self-interest; and any serious interference with the existing system would involve great danger of levelling down rather than up. Of state interference and of state management he is very suspicious. While friendly to trade unionism, he seems to allow little possibility of its playing an important part in the solution of the problem. It is in "Moral Reconstruction which would cover two fields, Consumption and Production," that he finds the remedy. "The positive issue of my Second Thoughts is that the present system is worth saving—not only for what it has done, but for the fact that, guided by conscious moral purpose, it may be reconstructed to secure still higher ends. It is not a reconstruction of the economic life, but a reconstruction of its motive."

The first needed change is in the consumer and here we have repetition of Ruskin's teaching in by no means as stirring words. The second point of attack is the conscience of the employer who by industrial betterment work like that of the Cadburys and the Rowntrees and the Levers is "to take himself seriously as a servant of the community—as a professional man." No wonder that his former student and biographer says somewhat sarcastically "all he asks for is—a moral revolution!" While noble in its tone and aspiration, charming in its statement, and sound enough so far as it goes, it must be said that the book does not add to its author's reputation. He is perhaps more pessimistic than formerly as to

the workings of this efficient system, as when he says: "when we insist that, in the future, the annual flow of wealth must not be diminished, making this the condition of raising the smaller incomes, we cannot hope to raise the wages, to any great extent at least, of the rank and file. The increase will go inevitably to the picked man." He calls it a gloomy prospect but the only prospect until the great moral evolution comes.

But Dr. Smart's numerous admirers in this country and in England (among whom the reviewer has long been one) will be glad to have this volume on account of the biographical sketch written by his former pupil and assistant, Professor Thomas Jones. This reveals our author as almost one's ideal of an economist. He was a successful and inspiring teacher and an able investigator. As the translator of the important works of Böhm-Bawerk and Wieser, he made English-speaking economists his debtor. His own economic writings are sound and often brilliant. In the settlement movement, in that for the higher education of women, in the advancement of temperance by the Public House Trust, in housing reform, and in the advocacy of the taxation of land values, he took an active part. Perhaps his greatest public service was as a member of the Poor Law Commission appointed in 1905. In addition to other arduous duties in connection with that, he wrote much of the majority report and several of its memoranda. Out of this service grew his *Economic Annals of the Nineteenth Century*, of which one volume has appeared and of which another is in press. Certainly William Smart was a worthy addition to the list of Scotch economists.

HERBERT E. MILLS.

Vassar College.

Economics. An Introduction for the General Reader. By HENRY CLAY. (London and New York: The Macmillan Company. 1916. Pp. xvi, 476. 3s. 6d.; \$1.10.)

The author of this book anticipates the impatience that many will feel at the appearance of another single-volume treatise on economics. His apology is twofold. In the first place, existing introductions are for university students and it is important that the general reader perceive the bearing of economics on political and social problems. Secondly, existing introductions give too little attention to the most important part of the subject: namely, the political and ethical aspects of the economic organization.

The justification for the appearance of this work will then depend upon our answer to certain questions. Does the book set forth clearly for the general reader, in untechnical terms, economic truth with more success than previous works? Does it better than existing books of its class deal with the ultimate ends of economic activities? Are these results, if secured, of sufficient importance to warrant an addition to the tiresomely long list of treatises?

The answer to the first question seems to the reviewer to be clearly in the affirmative, so far as the greater part of the book is concerned. Even by one who has been teaching economics for a quarter century the chapters dealing with production, speculation, competition, combination, money, banking, foreign trade and exchange, unemployment, are found fresh, clear, and seemingly well suited to the general reader. The brief treatment of value is satisfactory perhaps, but not better than that by some others. In the consideration of distribution the author seems in part to have forgotten his purpose; and, instead of a simple statement of the fundamental and less disputable facts and principles, to have thought best a consideration of conflicting wage theories and a critical discussion of some terms. Even where this is not true under distribution, there is no improvement in clearness and concreteness over some existing works, as, not to cite others, Dr. Marshall's *Economics of Industry*. All in all, however, the answer to the first question is in the affirmative.

Still more decidedly must we say yes to the second question. In his later chapters, treating of the state and economic organization and of wealth and welfare, there is a keen and vital discussion of fundamental principles and the assumptions of the present economic organization. The significance to the individual and society of private property and freedom of enterprise; the assumptions generally held regarding self-interest, survival of the fittest, and income as a measure of social service; the relations of wealth and welfare; the reaction of the distributive system on the kind of product and use of wealth; the materialistic tendencies of economic influence, and other topics, are suggestively examined. We have a radical protest from an economic point of view against much which is commonly taken for granted. Much of this has been said from the days of Ruskin, but perhaps nowhere in compact form have the ethical and political objections to the present economic system been more vitally urged. In places the point of view is fresh enough to be called original.

But after all, admitting that the answers to the first two questions raised in testing the book be favorable, is work of this kind worth doing? Is it desirable that the "general reader" be informed on economic truth and particularly that he be disturbed in his complacency about the present system? There is a distinct tendency evident among British economists to cease from refining economic theory and to turn to a consideration of the means by which the efficiency of the present economic organization may be transmuted into finer living. Hobson in *Work and Wealth*, published after this book was completed, and Smart in his *Second Thoughts*, reviewed on another page in this issue, have like the author of this book voiced this dissatisfaction with the economic judgment of our present productivity. Quantity of product has come to be great enough so that now we may well consider the sacrifice in further increase in product in order to secure a more rational utilization of what we have toward finer living. In such lines of thought, it is better that the lead be taken by trained economists, equipped with all the aid that economic science can give, than that the matter be left to partisan socialist or radical. It is then quite legitimate that books like the one under review be written for the "general reader." Any improvement in the economic system secured as a result of conscious purpose must in democratic countries be the outcome of informed and aroused public opinion. In creating this public opinion upon "the relation of the economic organization to political and ethical aims and standards" the economist ought to play a great part.

HERBERT E. MILLS.

Vassar College.

Social Problems. A Study of Present-Day Social Conditions. By EZRA THAYER TOWNE. (New York: The Macmillan Company. 1916. Pp. xviii, 406. \$1.00.)

Sociology. By JOHN M. GILLETTE. (Chicago: A. C. McClurg and Company. 1916. Pp. 159. 50 cents.)

A text for beginners in the social sciences in high school and college is a pedagogical desideratum of the present—at least for those who perceive that the traditional course in economic theory is not the best introduction to social studies. An ideal text for such a purpose should combine a study of concrete social conditions and problems with just sufficient sound social theory to afford the student some real insight into our social life. Such a

text has not yet been written, and probably will not be written until numerous trials have been made. Professor Towne's book, intended for such beginners, is devoid of even a theoretical background. It is almost entirely an analysis of present conditions and problems, without reference to any general theories. Starting with the usual consideration of natural conditions and population, it takes up such problems as immigration, child labor, women in industry, sweating, labor organizations, and unemployment; then passes to the relative abnormal problems of crime, divorce, the liquor traffic, poverty, with special chapters even on the blind and the deaf, the feeble-minded and the insane; finally ending with three chapters on the conservation movement.

Such a purely factual text is not without its advantages, and if the teacher can furnish the background of theory necessary to knit the facts together, into something like a unified view of our social life, it may work well. Perhaps this view can be adequately furnished to the beginner by Professor Gillette's primer on *Sociology*, which, unlike the previous book, is almost entirely confined to a statement of theory. A statement of theory within such brief compass must necessarily omit much, but the general viewpoint of the book is sound, and it is clearly and interestingly written. The two books might, therefore, be used together with advantage by a teacher who knew how to combine them. They are, at any rate, to be welcomed, as the more experiments we have in the making of texts for beginners the better.

CHARLES A. ELLWOOD.

University of Missouri.

El Capitalismo y el Problema económico. By AUGUSTO PEREYRA ALCANTARA. (Barcelona: Comas y Portavella. 1914. Pp. 114.)

Spanish history has been so rich in episodes and institutions of more than ordinary economic interest that the existence of a thriving school of economic theory would seem to be almost inevitable. Unfortunately, however, this has by no means been the case. Save for the brilliant group of eighteenth century thinkers, headed by Ustariz, Ulloa, and Campomanes, Spanish economic theorists of even ordinary caliber are very few, and the name of the present author can not be added to the list.

He undertakes to evolve a "new theory of value and of money," the originality of which is supposed to lie in an insistence upon

the "effective value of money as well as its representative function" (p. 23). The service which money performs should in no way be affected by any artificial influence, such as the fiat of a government. The discussion of this factor, "effective value," consumes almost all of the book, and leads the author along many devious paths. Remedies for usury are proposed, involving the establishment of rates by the state (p. 53), but the principles to be observed in this procedure are not specified. Government loans are categorically denounced as being "the cause of great harm" (p. 51). Life insurance of any description is economically wrong (*ilícito*) because "the sums paid out cannot be determined in accordance with effective value, since there is no means of expressing accurately (in money) the value of a man's life" (pp. 63-64). The distinction is here made between the insurance of property and that of human life.

These instances of the author's point of view may serve as illustrations of the character of his work, which is, for the most part, a carelessly arranged, hastily formulated series of *ipse dixit* observations. There is no indication of any knowledge of the standard works on the subjects under discussion, and such obvious topics as the quantity theory of money or the usual theories of interest seem to be entirely beyond the horizon of the author. He need not have sought the aid of foreign economists, for there is a wealth of stimulating material available in such collections as the Sempere Papers of the Spanish Royal Academy of History and the valuable library of the Madrid Economic Society, one of the oldest organizations of its kind in Europe. There have been some notable contributions in recent years to the economic history of Spain by native investigators, but the field of theory is still very much in need of attention on the part of Spanish scholars.

JULIUS KLEIN.

Harvard University.

NEW BOOKS

BURGESS, E. W. *The function of socialization in social evolution.* (Chicago: University of Chicago Press. 1916. Pp. vii, 237. \$1.25.)

EINAUDI, L. *Di una teorema intorno alla nazionalizzazione della produzione.* (Torino: Bocca. 1916. Pp. 23.)

EINAUDI, L. *Per una nuova storia delle dottrine economiche.* (Firenze: La Voce. 1915. Pp. 16.)

JONES, J. H. *The economics of war and conquest. An examination*

- of Mr. Norman Angell's economic doctrines. (London: King. 1916. 2s. 6d.)
- MELROSE, C. J. *The data of economics. Expressly designed for the general reader.* (London: Mitre Press. 1916. Pp. 388. 7s. 6d.)
- MUKERJEE, R. *The foundations of Indian economics.* (New York: Longmans. 1916. \$3.)
- PARKER, U. S. *Elements of economics for high schools.* (Quincy, Ill.: John Hall Prtg. Co. 1916. Pp. 234. \$1.)
- John Ruskin and social ethics.* Fabian biographical series, no. 6. Fabian tract no. 179. (London: Fabian Society. 1916. Pp. 24.)

Economic History and Geography

Commerce of Rhode Island, 1726-1800. Vol. II. 1775-1800. Collections of the Massachusetts Historical Society, Seventh Series, Vol. X. (Boston. 1915. Pp. 501. \$3.00.)

The second volume of this important publication opens with the Continental Association of 1774 in full operation and with the effects of the Prohibition act beginning to be felt. Trade with Great Britain had practically stopped. A few communications regarding remittances are recorded, but goods had ceased to be shipped. During the Revolution, trade was limited to Spain and Portugal, Amsterdam and Hamburg, and to the foreign West Indies. There is one mention of an American order for British goods shipped by way of Amsterdam, but after 1780 that channel was closed by the war. As early as 1781, however, British firms began to negotiate for American trade. In May, 1783, "intercourse between Great Britain and America being now quite open," one firm promises that orders from America "will be duly attended to." Yet this promise has no fulfilment as far as this volume furnishes evidence. "All Europe seems at present much engaged in an attention to their commercial interests," but English merchants are in a great state of uncertainty as to the issue, because "it is impossible to say what system may be adopted by this country relative to commerce with America." The question was not wholly a governmental one. Protheroe & Claxton wrote to Christopher Champlin in 1786: "Numberless have been the applications made to us to ship goods to different parts of America, but hitherto we have declined executing a single order, knowing the difficulty people there must labour under of making their remittances." Another firm wrote at the same time: "We have made a determination to open no new account with any person in America that requires any credit whatever." No commercial

treaty had been arranged with America, the American fishery was discouraged by heavy duties, and the Order in Council of July, 1783, had limited American intercourse with the British West Indies. One order is recorded as filled at Bristol in 1788, but after that date no further mention is made of trade with Great Britain.

But in other directions the peace of 1783 was scarcely signed when trade began to revive from the many misfortunes that were the consequences of the war and still more after negotiations for peace. The commercial activities of Rhode Island were with Ireland, Russia, Portugal, Sweden, Hamburg, the foreign West Indies, and the other American states. Full details of this activity can be obtained from the letters here printed. French merchants began to bestir themselves for a share in this trade. The frenzy of many adventurers poured immense quantities of goods into American ports, often ill-adapted to American wants or consumption. American merchants in their turn were no less active. Captain Bailey wrote in 1790 that Cap François was full to overrunning with beef, pork, flour, and fish. "There is about fifty sail of American vessels now lying here and others arriving daily." The French correspondents took particular pains to point out the commercial advantages of the reforms inaugurated by the French Revolution, which because of their "freedom and liberality" promised to give to the ports of France resources equal to those of any port in Europe for the products of America. But the sequel belied the promise. There was no trade with France recorded here after 1792. At the same time the uprising in Santo Domingo proved a terrible blow to American trade with that island. It stopped all business, brought selling to a standstill, held up American vessels, sixty-eight of which were seen lying at Port-au-Prince at one time, and led to serious seizures and consequent losses. The volume closes with the trade of Rhode Island in a seemingly declining condition.

One is struck with the frequent complaints of the poor quality of American staples. Flaxseed was badly cleaned and of poor measure, tobacco "most common, not cured at all, quite green and smelling like grass," casks were old and leaky, hoops rusty and rotten, tar, pitch, and turpentine very foul and short in weight, and oak bark was much adulterated. One comment in 1788 is significant; William Green, who had made the voyage to India, wrote:

I acknowledge the stipulation agreed upon between us, at a period when the American flag was looked up to as a cover of a free and independent commerce by individuals of every nation; but in the progress of my voyage and its event, so very far from that flag being useful to any purpose of mine, that in India I was constrained to relinquish it entirely; and at the instance of my friends and by the exertion of their interest in that country, I was permitted as a special favor and even then at heavy expense to assume the French.

CHARLES M. ANDREWS.

Yale University.

Rural Economy in New England at the Beginning of the Nineteenth Century. By PERCY WELLS BIDWELL. Transactions of the Connecticut Academy of Arts and Sciences, Vol. 20. (New Haven: Connecticut Academy of Arts and Sciences. 1916. Pp. 158. \$2.00.)

It is with pleasure that we welcome this contribution to the economic and agricultural history of rural New England. For reasons needless to specify the features of New England's agricultural economy have been given scant attention by historians and economists. Aside from Weeden and McMaster, Flint's *Eighty Years of Progress*, Colman's *Agricultural Survey of Massachusetts*, Carver's summary in Bailey's *Cyclopedia of Agriculture*, a few monographs on colonial land tenure and related topics, and some fugitive government reports on specific agricultural industries, we have little or no careful writing on New England's agricultural development.

New England affords a rich field for such investigation: the sources of materials are especially fertile; the periods of development are very distinctly marked; and the characteristic agricultural industries either have established themselves with comparative permanence or have passed through all the stages from incipient struggle to successful enterprise to final decline and practical abandonment.

The author in his analysis of New England's rural economy recognizes three phases: (1) the self-sufficing stage that reached its best exemplification about the beginning of the nineteenth century; (2) the period of transition to commercial agriculture, stimulated by the growth of manufactures, which continued down to its interruption by the Civil War; and (3) the period of decline extending from the Civil War to the end of the century, accompanied by Western competition, abandonment of farms, emigra-

tion, and the decadence of agricultural production and rural population. At present the reviewer has no criticism of the analysis. This monograph deals with the first phase, limiting the field of study to the three states of southern New England. The author promises monographs to follow which will cover the second and third periods. With these at hand it will be possible to judge how well his historical analysis is supported by historical fact.

The monograph is divided into six chapters. The first four deal with the economic life of the people of the inland towns, the forms of industry, possible domestic and outside markets for products, facilities for transportation—in short, underlying economic motives of inland as compared with commercial towns of the same region and period. The two remaining chapters discuss the agricultural industry and the home and community life of inland New England.

The fundamental factor underlying the agricultural and community development up to 1810 was the market. With no outlet for the fruits of labor, necessarily division of labor, kind and quantity of products, size of farm, intensity of culture, and form of household economy and community life were built around a self-sufficing economy which no exhortation or outside influence could move. Given a market outlet for one or several products, and there is introduced the impelling force which overrides ignorance of agricultural methods, rural conservatism, cheap land and dear labor, frontier conditions and emigration. In short, the prime and moving influence, beside which all others are incidental and subsidiary in determining the form and course of agriculture, is the market for agricultural products.

In the opinion of the reviewer the author has proved his contention. It is surprising, but significant of the obtuseness of agricultural students and rural investigators, that the importance of this factor should have so long escaped notice. Any danger of overemphasis—and he stresses the point—will be more than offset by the constructive value of directing attention to this interpretation of the array of facts with which he supports his thesis.

The source material is varied and extensive; the monograph is well and carefully written; a well-chosen and helpful bibliography is appended. The monograph deserves the attention of agricultural teachers and economists.

ALEXANDER E. CANCE.

Massachusetts Agricultural College.

The Hudson Bay Road. 1498-1915. By A. H. DE TREMAUDAN.
(New York: E. P. Dutton and Company. 1916. Pp. xvi, 264.
\$2.50.)

The author of this work is to be congratulated on the painstaking thoroughness with which he has mastered and summarized the bulk of the abundant literature dealing with the exploration and development of the Canadian Northwest. The book, too, makes its appearance at an opportune moment, when the long desired and much discussed Hudson Bay Railway is at last on the way to completion.

The declared purpose of the writer is "chiefly to tell of the country along the Hudson Bay Railway now under construction, of Hudson Bay, the Mediterranean Sea of North America, and of the resources to be found in Manitoba's new territory, including the great inland sea on which it borders." But the scope of the book is somewhat more comprehensive than is suggested by its title, even with this explanation. There are in all 21 chapters, with amplifications in 9 appendices. The first 6 chapters are devoted to the achievements of the early discoverers and explorers of Hudson Strait and Bay, and of the Northwest Territories generally, from the days of Cabot and Henry Hudson to those of Sir John Franklin: and other three chapters treat of Lord Selkirk and his Red River Colony; of the extension of Manitoba's boundaries in 1912, which more than trebled the area of the former "postage stamp" province, carrying it north and northeast to the shores of Hudson Bay; and of the political organization of the added territory. All this, while certainly interesting from the historical standpoint, can yet hardly be described as essential to a study of the Hudson Bay route as a practical economic problem of today. The evidence on this subject is, however, well summarized in the remainder of the book (chs. 8 to 15 and 18 to 21) which deals *inter alia* with the practicability of the route through the bay and strait, the history of the Hudson Bay Railway project, and the economic advantages to be expected from the opening up of this northern commercial route in view of the physical characteristics and immense natural resources of the district which it will serve.

The testimony of many experienced navigators goes, on balance, to show that Hudson Bay and Strait can be safely navigated probably for four months—July, August, September, and Oc-

tober—and on the most conservative estimate for over three months, July 15 to October 20. It follows that with the construction of the railway this route is likely to become, in M. Tyrrell's phrase quoted by our author, "the great outlet for the produce of the Canadian Northwest." In an interesting table (p. 211) a comparison is made of the distance from Saskatoon to Liverpool by the Hudson Bay route with that by the Great Lakes. Even with Montreal as the ocean port for the latter, there is a saving of freight charges to the farmers of western Canada by the Hudson Bay route on over 1,000 miles, three fourths of the gain being in the more costly land carriage. M. Trémaudan, moreover, rightly emphasizes the fact that the construction of the Hudson Bay Railway may admit of considerable economy in freight charges even supposing the route by Hudson Bay and Strait to be unavailable. Communication by water, which is ever the cheaper, is always open between Port Nelson on Hudson Bay and Port Nottaway on James Bay (a distance of 635 miles), while a railway is already projected to connect Port Nottaway with Quebec and Montreal. This route would have the advantage over the Great Lakes route of being open all the year round; while, as compared with the present all-rail route to Montreal, it would mean a considerable saving in freight charges (p. 126).

Further, as M. Trémaudan shows, the economic justification of the Hudson Bay Railway lies not merely in the facilities it will afford for the export of the grain of the Western wheat fields, and for the import of supplies from the Eastern provinces and elsewhere, but in the fact that it is necessary to the development of the admittedly vast natural resources of the surrounding territory, whether in fur, fish, timber, water power, minerals, or agriculture—the last-mentioned including not only grain but cattle. On the outlook in these different directions M. Trémaudan's remarks, as well as being instructive and encouraging, are founded on a solid basis of fact.

It is a somewhat ungrateful duty to have to conclude this review by pointing out that the English style is not always faultless. Illustrations will be found on pages 9, 18, 22, 61, 84, and a very glaring case of confused structure on page 49. Neither the text nor the bibliography contains any reference to Willson's *The Great Company*, the standard work on the history

of the Canadian Northwest. These, however, are but minor defects in an otherwise creditable work.

ARCH. B. CLARK.

University of Manitoba.

NEW BOOKS

BALLS, W. L. *Egypt of the Egyptians.* (New York: Scribners. 1915. Pp. xvi, 266, illus.)

BOSE, S. *Some aspects of British rule in India.* Bulletin of the State University of Iowa. Studies in the social sciences, vol. V, no. 1. (Iowa City. 1916.)

Contains a chapter on Indian commerce and industry and one on agriculture and famine in India.

BOUCHER, C. S. *The nullification controversy in South Carolina.* (Chicago: Univ. Chicago Press. 1916. Pp. xi, 39. \$1.50.)

CHAPIN, H. M. *Documentary history of Rhode Island; being the history of the town of Providence and Warwick to 1649, and of the colony to 1647.* (Providence: Preston & Rounds. 1916. \$3.)

CLARK, V. S. *History of manufactures in the United States, 1607-1860.* With an introductory note by HENRY W. FARNAM. (Washington: Carnegie Institution of Washington. 1916. Pp. xii, 675.)
To be reviewed.

DAHLINGER, C. W. *Pittsburgh: a sketch of its early social life.* (New York: Putnam. 1916. Pp. vii, 216. \$1.25.)

Located as it was on the main highway to the Mississippi Valley and at the head of navigation for travelers down the Ohio River, Pittsburgh early became an important trading center. With the beginning of the westward movement, after the conclusion of the French and Indian War in 1763, it sprang into prominence; and when this movement gathered full force after the War of 1812, Pittsburgh became one of the most important cities of the growing West. In this volume Mr. Dahlinger has described the development of schools, of newspapers and books, the nationality and character of the mixed population, the growth of political parties and the conduct of campaigns, and other aspects of the social life of the people. It is largely biographical and relates interesting gossip about leading citizens, some of whom came to be of national importance. The book is written in an entertaining style. It covers the half decade from 1760 to 1810.

E. L. B.

FORDHAM, M. *A short history of English rural life; from the Anglo-Saxon invasion to the present time.* (New York: Scribner. Pp. 16, 183. \$1.25.)

GOULD, J. W. DuB. *General report on Haiti to Messrs. Breed, Elliott and Harrison, Messrs. P. W. Chapman and Company.* (New York: Evening Post Pub. Prtg. Office. 1916.)

- GRIFFIN, G. G. *Writings on American history, 1914; a bibliography of books and articles on United States and Canadian history published during the year 1914.* (New Haven: Yale Univ. Press. 1916. Pp. xvii, 207. \$2.)
- HAUSER, H. *Les méthodes allemandes d'expansion économique.* (Paris: Colin. 1916. 3.50 fr.)
- HUART, A. *Finances de guerre comparées. Le change. Le crédit. La situation économique et financière des belligérants.* (Paris: Giard & Brière. 2.50 fr.)
- MILLER, M. M. *American debate; a history of political and economic controversy in the United States, with critical digests of leading debates.* Pt. I. Colonial, state, and national rights, 1761-1861. Pt. II. The land and slavery questions, 1607-1816. (New York: Putnam. 1916. Pp. 467; 417. \$2.)
- NAUMANN, F. *Central Europe.* Translated from the German by C. M. MEREDITH. (London: King. 1916. Pp. 368. 7s. 6d.)
- ORRIER, C. *Les leçons économiques de la guerre.* (Paris: Dunod & Pinat. 1916. Pp. 130. 2.50 fr.)
- PLAATJE, S. T. *Native life in South Africa before and since the European war and the Boer rebellion.* (London: King. Pp. 352. 3s. 6d.)
- ROBERTS, G. E. *Business after the war.* (New York: National City Bank. 1916. Pp. 21.)
- ROSS, G. *Argentina and Uruguay.* (New York: Macmillan. 1916. Pp. 15, 308. \$3.50.)
- ROWE, H. K. *Society. Its origin and development.* (New York: Macmillan. 1916. Pp. 15, 308. \$3.50.)
- SIEGFRIED, B. *Repetitorium der Schweizerischen Volkswirtschaft. Einleitung, Die Landwirtschaft, Die Industrie, Handel und Handelspolitik, Verkehr und Verkehrswesen, Geld- Bank- und Börsenwesen, Nachtrag.* (Zürich: Orell Füssli. 1916. Pp. 92. 3 fr.)
- SOUBRIER, M. *L'organisation industrielle de l'Allemagne.* (Paris: Dunod & Pinat. 1916. 1 fr.)
- SURREY, N. M. M. *The commerce of Louisiana during the French régime, 1699-1763.* Columbia University studies in history, economics, and public law, vol. LXXI, no. 1. (New York: Longmans. 1916. Pp. 476. \$4.)
- WEBB, S. *Towards social democracy? A study of social evolution during the past three-quarters of a century.* (London: Allen & Unwin. 1916. Pp. 48. 1s.)
- WEBSTER, H. *Rest days. A study in early law and morality.* (New York: Macmillan. 1916. Pp. xiv, 325.)
- A study in social anthropology by the professor of that subject

in the University of Nebraska. The author traces the passage of the holy day into the holiday among many savage and barbarian peoples.

WERGELUND, A.M. *History of the working class in France*. (Chicago: Univ. Chicago Press. 1916.)

WILLIAMS, J. B. *A guide to some aspects of English social history, 1750-1850*. (New York: Columbia University. 1916. Pp. 149.)

WRONG, LANGTON, and WALLACE, editors. *Review of historical publications relating to Canada*. University of Toronto studies, vol. XX of publications of the year 1915. (Toronto: Univ. Toronto Press. 1916. Pp. xii, 224. \$1.50.)

The Baltimore book. Fifth edition. (Baltimore: Meyer & Thalheimer. 1916. Pp. 192. 25c.)

Mexico. A financial handbook. (New York: Mechanics and Metals National Bank. 1916. Pp. 45.)

Philadelphia year book, 1917. In two volumes, English and Spanish. (Philadelphia: Publication Office, 1010 Arch St. 1916.)

Provvedimenti in materia di economia e di finanza emanati in Francia in seguito alla guerra Europea. Part I. August 1, 1914, to July 31, 1915. (Rome: Ministero di Agricoltura, Industria e Commercio. 1916. Pp. 368.)

Agriculture, Mining, Forestry, and Fisheries

NEW BOOKS

ANTRIM, E. I. *Fifty million strong; or, our rural reserve*. (Van Wert, O.: Pioneer Press. 1916. Pp. vii, 152. 75c.)

BOWLES, O. *The technology of marble quarrying*. Bulletin 106. (Washington: Dept. of the Interior. 1916. Pp. 174.)

CARVER, T. N. *Selected readings in rural economics*. Selections and documents in economics, edited by W. Z. Ripley. (Boston: Ginn. 1916. Pp. 974. \$2.80.)

All the volumes in this series have been either used or carefully examined by the writer of this review, and in his judgment none is superior to this one in excellence, timeliness, or usefulness in connection with college instruction. The selections must be accepted as the best to be had; though some of them are only fair and a few are faulty. Some of the reprints are translations, which are generally not available in colleges of agriculture, and others come from sources found only in the most thoroughly stocked libraries.

The field covered includes general principles of rural economics, agricultural history (both European and American), land tenure (a study of both landownership and tenancy), agricultural labor, the farmer's business (farm accounting, management, etc.), agrarian movements in the United States, rural organization and marketing,

and general agricultural policy. Probably each specialist in this field of study is inclined to give different weight to the various subjects covered, and it is therefore not unfair for the writer to wonder why only two short articles are presented on the fundamental topic of agricultural labor and at least ten on land tenure. It would seem that Professor Carver did not have in mind to present selections in proportion to the importance of the several subjects.

The growing demand for such material in the agricultural colleges and the many small colleges and universities would welcome a second compilation.

JOHN LEE COULTER.

GARDNER, F. D. *Successful farming; a ready reference on all phases of agriculture for farmers of the United States and Canada.* (Philadelphia: Winston. 1916. Pp. 1088. \$2.50.)

HALL, A. D. *Agriculture after the war.* (London: Murray. 1916. Pp. 137. 3s. 6d.)

JENNINGS, H. *The history and development of gold dredging in Montana. With a chapter on placer-mining methods and operating costs,* by C. JANIN. Bulletin 121. (Washington: Dept. of the Interior, Bureau of Mines. 1916. Pp. 63.)

JOHNSTON, J. H. C. *A national agricultural policy.* (London: King. 1916. 6d.)

LEWIS, A. D. *Irrigation and settlement in Africa.* (Pretoria: Gov. Prtg. Office. 1915. Pp. 258.)

WOOD, T. B. and HOPKINS, F. G. *Food economy in war time.* (Cambridge: Univ. Press. 1915. 6d.)

YERKES, A. P. and CHURCH, L. M. *An economic study of the farm tractor in the corn belt.* Farmers' Bull. 719. (Washington: Dept. Agr. 1916. Pp. 24.)

Manufacturing Industries

The Butter Industry in the United States. An Economic Study of Butter and Oleomargarine. By EDWARD WIEST. Columbia University Studies in History, Economics, and Public Law, Vol. LXIX, No. 2. (New York: Longmans, Green and Company. 1916. Pp. 264. \$2.00.)

The history of the butter industry is described, covering such phases as the evolution of the factory system, the introduction of the cream separator, and the invention of the Babcock tester. Figures are presented which show the tendency toward concentration in large creameries. Attention is given to the development of coöperation in cow-testing, in breeding, and in the ownership of butter factories. Census figures indicate that 24 per cent of

the butter manufactured in the United States is made in coöperative creameries.

After a description of the geographical distribution of butter-producing areas, including a historical view of the shifting of the industry, and an account of the progress made in dairy education, a valuable chapter is devoted to the grading and judging of butter. It is shown that butter was first classified according to its maker, then according to the locality where it was produced, and finally according to the process of manufacture. The development of commercial grades and the system of scoring on the basis of 100 points are well described.

On the organization of the butter market, interesting historical facts are presented, the development of exchanges is described, the present methods of marketing butter are explained, and attention is given to the making and meaning of butter quotations. The value of this part of the monograph is greatly enhanced by the fact that the author has obtained first-hand information in the markets, rather than relying on printed sources. A valuable study of butter prices is also presented. The last two chapters are devoted to the adulteration of butter, the manufacture of oleomargarine, and the development of state and federal laws dealing with oleomargarine. The treatment of these subjects is excellent.

This monograph is a well executed piece of work in an important field, and on the whole it offers a comprehensive treatment of the subject. It is perhaps unfortunate that the author could not have done more first-hand investigational work in the leading dairy states of the Middle West, so as to have come face to face with some of the vital problems that the dairy industry is concerned with at present. Cream grading, state butter brands, conditions under which milk is produced and separated on the farm, and competition between the coöperatives and "centralizers," are some of the topics that merit discussion in a treatise of this sort.

Since the "centralizers" represent the most important development in butter manufacture during recent years, more might have been written of their history, their methods of buying cream, their methods of marketing, and the problems that they have raised. These creameries, many of which are very large ones, obtain their cream by express from great distances—sometimes from points as far distant as 300 or 400 miles. All of this cream is sour when it reaches the centralizers, and much of it is in bad condition. The

quality of butter made, however, is surprisingly good, considering the condition of the raw material from which it is made, but it is not of the finest quality, such as that made in country creameries which depend on local supplies of cream. Through large-scale production and marketing, and widespread advertising, these concerns have developed highly efficient organizations which have cut into the businesses of the local creameries and have caused much bitterness of feeling in many states.

In the description of butter dealers, the so-called brokers of Chicago deserve a word, in that they play an important part in redistributing to other parts of the country the enormous amounts received in that city. The author is perhaps a bit optimistic about the possibility of coöperative selling agencies in large cities (p. 160), and fails to note that an experiment of this sort was started by a group of Minnesota creameries in New York City in 1915. It would have been instructive if the author could have told us something of the interesting differences in the quality of butter used by different cities; how Chicago is largely content with "centralized" butter, how New York and Philadelphia demand the best, fresh, country creamery butter, and how Boston relies largely on the cold-storage product, etc.

The author is in error when he defines the wholesale price of butter as "the amount paid by the wholesale dealer to the producer" (p. 192). It is generally understood in the large markets that the wholesale price is the price charged by wholesale receivers or commission men for large lots of butter (usually to jobbers) at the wholesaler's place of business. The estimated division of marketing costs between wholesaler, jobber, and retailer (p. 192) is faulty. The author also apparently has a slightly wrong conception of the Elgin market and Elgin quotation of today. That there is no real butter market there, that the quotation is made only once a week by a faulty method, and that the dealers who meet there once a week are principally Chicago wholesalers, are all facts that might well have been brought out.

L. D. H. WELD.

Sheffield Scientific School.

NEW BOOKS

ALLEN, F. J. *The shoe industry.* (Boston: Vocation Bureau. 1916. Pp. 327. \$1.25.)

BRYNER, E. *Dressmaking and millinery.* (Cleveland, O.; Cleveland Foundation Survey Committee. 1916. Pp. 133. 25c.)

- BRYNER, E. *The garment trades*. (Cleveland, O.: Cleveland Foundation Survey Committee. 1916. Pp. 153. 25c.)
- COMPTON, W. *The organization of the lumber industry, with special reference to the influences determining the prices of lumber in the United States*. (Chicago: American Lumberman. 1916. Pp. x, 153. \$2.)
- LUTZ, R. R. *The metal trades*. (Cleveland, O.: Cleveland Foundation Survey Committee. 1916. Pp. 129. 25c.)
- State of Washington timber workers' employment guide, 1915-1916*. (Seattle, Wash.: Timber Workers' Pub. Co. 1915. Pp. 127.)

Transportation and Communication

Studies in the Cost of Urban Transportation Service. By F. W. DOOLITTLE. (New York: American Electric Railway Association. 1916. Pp. xxiii, 467. \$3.50.)

A large amount of information is contained in this book. It treats many different phases of its subject from still more points of view. No one, unless possibly some street railway accountant, is likely to read it all. But as a source to turn to for materials it will be very useful to many. It is impossible in short space to give more than a general idea of the contents of its 467 pages of very fine print, which bristle with tables, charts, and diagrams.

The origin of the book is interesting and gives it an excellent backing of authority. It is the result of the work of a "Bureau of Fare Research" organized under the direction of a committee of the American Electric Railway Association. Five well-known street railway managers sign the preface, endorsing the work of Mr. Doolittle and giving credit also to Mr. Edwin Gruhl as having "represented the committee in many of the conferences with Mr. Doolittle." The compilation was made between May, 1914, and October, 1915, and all data are brought down as nearly as possible to date. It contains the results of some "special investigations," but much of the material is collected from many sources in previous publications.

One thing that may possibly surprise the reader is the general tone of optimism. While the common impression that street railways have fallen on evil days is sustained by the showing that the capital invested pays less than 4 per cent (p. 71); that new capital is being had only at ever-increasing rates of interest on account of the increasing risks (p. 4); that the "jitneys" and other competing forms of transportation are cutting into the growth of

earnings (p. 298 ff.); that the prospect of being hampered by popular legislation and regulation is greater for street railways than for any other public utility (p. 80); and that the return to capital is greater in manufacturing investments (p. 73)—yet there is no note of despair. The pages of joy, mainly over internal successes in reducing costs, far exceed those of gloom over the darkening environment. In fact the shadows seem to have been mentioned solely

in the hope that they will assist in clearing up much of the misunderstanding that prevails in many quarters as to the actual financial results of electric railway operation and the possibilities of lower fares and larger contributions from electric railways toward the cost of government (preface).

Among the most conspicuous of the cost-saving devices set forth are the "skip stop" system and the pay-as-you-enter and pay-as-you-leave systems.

While there is no extended argumentation for any particular doctrine as to the relation of public utilities to the public, yet certain attitudes of mind are woven into the book, which may or may not express the general attitude of street railway managers. In two cases these are in striking contrast. Thus there runs through the discussion of the capital costs the idea that some of the often debated items, like promotion costs, franchise values or costs, discount on securities, brokerage, constitute a proper claim for increased earnings. Failure to meet all production costs, including these, is attributed "principally to causes beyond the control of the management" (p. 3), and it is urged that "the fault lies with the community and not with the street railway company" (p. 3). Errors in financing are excused by the statement that "financing under these conditions was costly" (p. 6). It is urged, as if in defense of errors, that "the promoters' views of the new enterprise were unusually optimistic" (p. 3). In this connection there is a frank insistence on the private rights of the owners of the public utility in their extreme form.

On the other hand, there is in other connections, especially in connection with the service to be furnished, a full recognition of the public duties of the public utilities and of the necessity of studying and endeavoring to meet public opinion. The chapter on the Psychological Aspect of Street Railway Service is very remarkable in this respect, as well as very interesting in the material brought together. It was based on special studies made by

university students in Milwaukee and in Cleveland. The general aim was to ascertain what constituted "satisfactory service."

Sometimes a little special pleading creeps in. There is much of this in the chapter on Competing Forms of Transportation, and especially in connection with the "jitneys." After proving that the jitneys are bad economically for the public as well as their operators, and giving no hint of a reason for their persistence and multiplication, the chapter ends with a eulogy of the relatively greater merits of the street cars.

While most of the book is general, Part V, which deals with Regulation and the Cost of Service, is special. It contains a full history of the Cleveland Experiment and of the Milwaukee Experiment, but set forth in a way to illustrate the principles involved. It may be that this part of the book is colored by the attitude of mind of the author, though if so it is not apparent.

The book is especially rich in materials for a study of the methods of cost accounting. Statistical methods are very cleverly and effectively used. In this respect the chapters on Traffic Characteristics, Traffic Survey, Traffic Observation, Application of Traffic Data, and the Paying Haul are among the best, but there are others that are good.

The book seems to have been hurriedly thrown together. The English, although the meaning is usually clear, is not always well chosen. On the very first page, there are listed as "costs" items of interest called "returns." Some of the tables lack the necessary legends for interpretation, the table on page 11 lacking any indication as to what the figures stand for. One can guess that they are percentages, but one has to guess again what they are percentages of. Also, we find material introduced that is not strictly pertinent. Thus, on pages 50 and 51 are charts showing the fluctuations in the average of hourly wages, without any hint that labor "costs" may fluctuate very differently. Yet these are little things. It is certain that every economist with any interest in this field at all must have this book where he can consult it.

CARL C. PLEHN.

University of California.

Railway Monopoly and Rate Regulation. By ROBERT JAMES McFALL. Columbia University Studies in History, Economics and Public Law, Vol. LXIX, No. 1. (New York: Longmans, Green and Company. 1916. Pp. 223. \$2.00.)
The chief work of railroad economists in the past has been in

the analysis of economic problems and in the criticism of railroad abuses. This work has been important. But even more vitally important is the work of construction. This monograph by Dr. McFall is of value because of its constructive suggestions and because of the admirable spirit in which it is written.

At the very outset he gets at the heart of the railroad problem. In his introduction he says:

It is not in the long run so much a matter of a just return being allowed to the railways as it is a matter of giving them sufficient income to provide accommodations for the commerce of the country, particularly when the business is constantly increasing.

It is impossible in this brief review to give an adequate synopsis. The author's main thesis may be thus summarized. The effectiveness of a transportation system is determined by the expansion of traffic. This expansion may be hampered in two ways: by excessive rates and by inadequate facilities. Because railroads are monopolies there must be some effective means of controlling rates, for high rates restrict transportation. It is equally important, however, that the railroads should provide adequate facilities and in order that such facilities may be provided it is essential that the net returns to the railroads should be sufficient to attract capital.

The value of the analysis lies in the importance which the author attaches to the latter suggestion. He appreciates, as few writers do, the vast amount of money which must be raised in order that our railroad systems may adequately serve the public. Regulation must, therefore, be helpful and encouraging.

Dr. McFall, apparently, is not enthusiastic over the valuation of railroads now being conducted by the Interstate Commerce Commission, but he accepts it and points out a way in which it may be useful. In the first place, he believes that railroads should be allowed the value of donated lands and the value of improvements made out of earnings. He makes a conclusive answer to the cry raised by shippers that they should not be called upon to pay rates based upon investments of surplus earnings:

If we refuse to allow this surplus of the past to be counted in the valuation we would be taking from present owners of railway securities what past owners filched from past patrons and we would be returning this, in the shape of capital goods to be used without charge, to the present patrons of the railways who never paid anything to this surplus.

He would not allow the multiple in his land value but thinks that the railroads will be amply compensated if allowed the un-

earned increment. In other words he follows the principle laid down by the Supreme Court in determining the present value.

Having thus determined a fair value, which will be liberal enough to attract new capital, he proceeds to lay down the principle that having wiped clean the slate we now proceed to add to this valuation the investments made from time to time. The impracticability of basing rates from year to year on the existing valuation is obvious. And yet, if the valuation theory is logically carried out rates will depend upon conditions which have no relevancy to transportation needs. For instance, if unit costs, ten years from now, should be double what they are today a revaluation would be necessary, and an illogical and uncalled-for adjustment of rates would have to be made.

Dr. McFall's theory is sensible. The railroads ought to be satisfied with such a basis. No other interest would attack it. For any revaluation would undoubtedly greatly increase the present valuation.

His discussion of rates of return is equally admirable. We are rapidly getting away from the conception that a public utility is entitled only to a fixed maximum profit. Such a theory places a premium upon inefficiency and discourages enterprise. It ought not to be applied even to local utilities. It can not be applied to transportation lines, for if a maximum rate of return is fixed for a line which is prosperous and well located, and rates are adjusted to give only this maximum return, other lines compelled to adopt such a rate basis may become bankrupt. This results in inadequate railroad facilities and the restriction of traffic.

If the actual investment in the future is to be the increment added to the present valuation, a vista of interesting questions is opened up as to the control which may properly be assumed by governmental authority over the issuance of securities. The author does not discuss this question, but the logic of his analysis leads to the conclusion that the public authorities are concerned only with the amount of money actually expended upon the transportation plant, and not with the price and nature of securities issued, a conclusion which is substantially that reached by the Railroad Securities Commission.

In his last chapter Dr. McFall deals with the regulation of particular rates. He marshals the authorities who regard cost as the essential element in rate making. He seems to be somewhat unduly impressed by the weight of these distinguished authorities

and fails to make an independent analysis of the limitations of the cost principle in rate making. Clinging to his main theory that rates should be so adjusted as to produce the greatest amount of transportation, he emphasizes the necessity of relative high rates on articles of high value while rates on articles of low value should be low in order that such articles may move freely. There is nothing new in this analysis. It is the way rates are made today by the rule-of-thumb methods of traffic officials. It is estimated that three fourths of the traffic moves on commodity rates. Such rates are made upon the basis of charging *only* what the traffic will bear. No principle of cost of service or value of the articles enters into the making of these rates. If the distinction between the principles governing competitive and non-competitive rates will be kept always in mind some progress may be made towards the development of rate-making theories.

EDGAR J. RICH.

NEW BOOKS

- CURRAN, J. P. *Application of agency tariffs*. (Chicago: LaSalle Exten. Univ. 1916.)
- DENNIS, W. J. *The traveling post office; history and incidents of the railway mail service*. (Des Moines: Homestead Prtg. Co. 1916. Pp. 128. \$1.25.)
- KETCHUM, E. S., editor. *The traffic library. Application of tariffs between and from points in Western classification territory*, pt. 2. (Chicago: Am. Commerce Assoc. 1916. Pp. xx, 235.)
- FRANK, J. C. *American interoceanic canals; a list of references in the New York City Public Library*. (New York: The Public Library. 1916. Pp. 90. 30c.)
- GRAHAME, L. *Argentine railways*. (New York: Renskorf, Lyon & Co. 1916. Pp. 36.)
- HALSEY, F. M. *Railway expansion in Latin America*. (New York: Moody Mag. & Bk. Co. 1916. Pp. 171. \$1.50.)
- JOHNSON, E. R. and VAN METRE, T. W. *Principles of railroad transportation*. (New York: Longmans. 1916. \$2.50.)
To be reviewed.
- MOLLI, G. *Le grandi vie di comunicazione*. (Torino: Bocca. 1916. 4 l.)
- THOMPSON, S., editor. *The railway library, 1915. Seventh series*. (Chicago: Stromberg, Allen & Co. 1916. Pp. 466.)
- WARNE, F. J. *Before the Interstate Commerce Commission, no. 8725, Lake cargo rates; no. 8598, the Pittsburgh Coal Operators Associa-*

tion vs. *Pennsylvania Company, et al.*; exhibits by the *Pittsburgh Coal Operators Association*. (Washington: Frank J. Warne. 1916. Pp. 103. \$10.)

WARNE, F. J. *Before the Interstate Commerce Commission, I. & S. docket no. 774, bituminous coal to Central Freight Association territory, and dockets no. 7662, 6951, 7089, 7371, 7667, 7668, 7669, and 7422; exhibits by the Pittsburgh Coal Operator's Association*. (Washington: Frank J. Warne. 1916. Pp. 104-461. \$50.)

List of references on railroad terminals. (Washington: Bureau of Railway Economics. 1916.)

Trade, Commerce, and Commercial Crises

Course in Foreign Trade. EDWARD EWING PRATT, director. (New York: Business Training Corporation. 1916.)

- I. *Economics of World Trade*. By O. P. AUSTIN. (Pp. 141.)
- II. *The World's Markets. From the Point of View of American Exporters*. By EDWARD NEVILLE VOSE. (Pp. 190.)
- III. *Export Policies*. Part I. *Determining Export Policies*. By EDWARD EWING PRATT. Part II. *Export Policies Employed in Certain Lines*. By E. C. PORTER and P. B. KENNEDY. (Pp. 159.)
- IV. *Export Houses*. Part I. *The Export Merchant*. By JOHN F. FOWLER. Part II. *The Export Commission House*. By C. A. RICHARDS. Part III. *The Export Forwarder*. By HENRY A. TALBOT. (Pp. 112.)
- V. *Direct Exporting. Presenting the Problems of the Exporting Manufacturer*. By WALTER F. WYMAN. (Pp. 136.)
- VI. *The Export Salesman*. By PAUL R. MAHONY. (Pp. 108.)

These are the first six volumes in a twelve-volume correspondence course for students planning to enter foreign trade. The first volume, *Economics of World Trade*, is evidently intended to arouse interest by stimulating the imagination of students. The introduction, written by Dr. Pratt, dwells chiefly upon the effect of the European war in creating an international point of view in the United States in making us realize that we are not an isolated nation. The remainder of the volume is primarily a statement of the magnitude of American industry and commerce and of the factors which have contributed to the growth of international trade during the last century. Two pages are devoted to the tariff; and from the fact that imports and exports of the United States showed an enormous increase between 1870 and

1913 it is concluded (p. 72) that: "Whatever may be the result of a protective tariff upon the importation of individual articles or upon the manufacturing industries of the country adopting it, the effect upon the total value of international exchanges of merchandise is apparently stimulative rather than repressive." Among the reasons for the decline of the American merchant marine since 1860 (p. 95), no mention is made of the strongest influence—the opportunities for more profitable investment in domestic business enterprises.

In the second volume the necessity of the exporter's making a careful study of each prospective market is emphasized. A brief but valuable summary is given of the characteristics of the demand for American goods in each foreign country, and strategic locations for agencies or branch offices are discussed in a manner which shows that the author thoroughly grasps his subject. The recognition of the fact that Europe is actually and potentially our greatest foreign market is noteworthy.

The third volume, *Export Policies*, consists of two parts, of unequal merit. In the first part, written by Dr. Pratt, the fundamental similarity between foreign and domestic business is clearly brought out and essential factors in the formulation of export policies are discussed. This section is full of suggestive ideas valuable to the student and to the business man. In the second part of the volume a large and difficult task is undertaken, without conspicuous success. The title of the section is *Export Policies Employed in Certain Lines*. It is, however, merely a brief and incomplete summary of methods used in exporting different products. Little appreciation is shown of the influence of methods of wholesale and retail distribution in foreign countries on the determination of manufacturers' export policies.

The functions and methods of the export merchant, export commission house, and export forwarder, are explained in the fourth volume, *Export Houses*. Each of the three types of export houses is treated separately by a man who is familiar with the type of which he writes. Thus different points of view are contrasted. In the section on the export commission house the author explains why a commission house frequently buys and sells on its own account, receiving a trading profit instead of a commission. Apparently he does not agree with those who believe that this combination of commission and merchant transactions is inconsistent and likely to cause friction.

In volume V, *Direct Exporting*, the organization of a manufacturer's export department and basic problems of business policy in direct exporting are analyzed with keen insight. In volume VI, *The Export Salesman*, salesmen are advised how to proceed in securing foreign business.

Taken as a whole, the series is to be commended for its broad, practical point of view and especially for its emphasis upon the factors involved in the determination of business policies in foreign trade.

MELVIN T. COPELAND.

Harvard University.

NEW BOOKS

BENN, E. J. P. *Trade as a science.* (London: Jarrold. 1916. Pp. 184. 2s. 6d.)

FARROW, T. and CROTCH, W. W. *The coming trade war.* (London: Chapman & Hall. 1916. 2s. 6d.)

FILSINGER, E. B. *Exporting to Latin America. A handbook for merchants, manufacturers and exporters.* (New York: Appleton. 1916. Pp. xiii, 565. \$3.)

JOHNSON, E. R. and HUEBNER, G. G. *Shipping. In its relation to our foreign trade.* Seventh unit of a course in foreign trade. (New York: Business Training Corporation. 1916. Pp. 156.)

JONES, C. L. *Caribbean interests of the United States.* (New York: Appleton. 1916. \$2.50.)

JUST, C. F. *Reprint of articles dealing with Russian trade.* (Ottawa: Dept. Trade & Commerce. 1916. Pp. 97.)

MACDONALD, A. J. *Trade politics and christianity in Africa and the East.* (New York: Longmans. 1916. Pp. xxii, 296. \$2.)

WYMAN, W. F. *Export trade—a profit maker.* (New York: Business Training Corporation. 1916. Pp. 47.)

British trade after the war. Summaries of evidence before the sub-committee on measures for securing the position, after the war, of certain branches of British industry. (London: King. 1916. 4d.)

Marketing methods and salesmanship. Pt. 1, *Marketing methods*, by R. S. BUTLER. Pt. 2 *Selling*; Pt. 3, *Sales Management*, by H. F. DE BOWER and J. G. JONES. (New York: Alexander Hamilton Inst. 1916. Pp. xxii, 555.)

Accounting, Business Methods, Investments, and the
Exchanges

American and Foreign Investment Bonds. By WILLIAM L. RAYMOND. (Boston: Houghton Mifflin Company. 1916. Pp. x, 324. \$3.00.)

Writers and publishers in America of books on any division of finance, public or private, have largely confined themselves to works in the nature of ABC's and primers, at the utmost giving only an elementary treatment of the subject discussed. It is encouraging to see the increase in recent years of books that are something more than "finance made easy." The books of Daggett and Dewing in the series of Harvard Economic Studies have been such solid work. Now Raymond's *American and Foreign Investment Bonds* appears, not in the same series, but of much the same external appearance and the same kind of mental solidity. Of course, this review does not mean to imply that the books mentioned are the only American work of this more substantial character. The names of Scott, Noyes, Dewey, and others would too quickly come to mind. But the recent years show a more frequent appearance of such work.

Mr. Raymond is, I believe, a member of a Boston investment banking house. This also is encouraging. In England and on the Continent it has in the past been at least less of a reproach than here for a business man, especially for a banker, to have an interest in applying scholarship to his occupation. When business gets scholarly and a show of scholarship does not cause a business man to be looked on with too great suspicion, we have an encouraging sign for our economic and social future. In this connection we naturally recall another work in the same field as Mr. Raymond's—Chamberlain's *Principles of Bond Investment*, also written by a man actively engaged in the work of investment banking.

Mr. Raymond's book is especially interesting for the amount of attention it gives to foreign government bonds. Because we have been a borrowing and not a lending nation, Americans have been most provincial in their investments. Before the European war only a few foreign bonds came at all into this market. Now there are already many issues here. The subject is bound to become increasingly important. International investment in government bonds, a familiar business in London and Paris, has come to us before we have hardly any available data on the subject. In this respect Mr. Raymond's book is very timely.

The book throughout is especially good for its abundant citation of sources of authority. The notes should prove useful to the earnest student seeking further information along the line of any of the topics discussed. An ample index is also a helpful part of the work.

Perhaps in places the discussion wanders rather widely afield. The treatment of the Clayton act of course has a bearing on industrial bonds, the topic under which it is presented, but so have many other matters one would hardly think of going into at length in a book on bonds. The particular manner of the treatment of corporate reorganizations would fit a book on corporation finance rather better than a book on investments. Such discursiveness is natural enough, however, in a field where the boundaries of the several lots are hardly yet surveyed.

The chapter headings sufficiently indicate the field covered. They are: 1, The Field of Investment; 2, United States and Foreign Government Bonds; 3, State Bonds; 4, County, Municipal and District Bonds; 5, Steam Railroad Bonds; 6, Public Service Corporation Bonds; 7, Industrial Bonds. The book collects a vast amount of information on many topics, and will be useful for reference after the original reading, and for those who do not read except by reference. The succinct and up-to-date statements of the history of the state debts, and the summary of numerous municipal defaults are examples of a large amount of matter useful for reference.

HASTINGS LYON.

Holders of Railroad Bonds and Notes: Their Rights and Remedies. By LOUIS HEFT. (New York: E. P. Dutton and Company. 1916. Pp. xvi, 419. \$2.00.)

The subject discussed in this book is one of great contemporary interest, not only to the practical investor but to the theoretical student of finance. The rights that are involved in the ownership of corporation liabilities are of so wide and varied a nature that they touch the extremities of mere statutory law and the most profound distinctions of modern economic theory. When a corporation is successful, one bond or note is better than another only in the amount of its income yield; but in the presence of threatened or actual bankruptcy, the question of income yield is insignificant compared to that of the relative priority of rights to the actual property of the bankrupt. In truth, there are two

altogether different standards to be applied in assaying the value of an investment security, one set for fair weather and one set for foul weather. The rights of a railroad bondholder are simple and clear so long as the railroad is prosperous, but when the railroad property goes into the hands of receivers those rights assume so new, so complex, and so unpredictable a character that the most profound student of law and finance can not define them with accuracy. It is this change of viewpoint which makes the whole subject of corporation failure and reorganization at once the most intricate and the most fascinating phase of corporation finance.

This twofold character of the rights of the holders of railroad evidences of debt is indicated by the author of *Holders of Railroad Bonds and Notes* more by the division of his chapters than by any conscious recognition of a duality of legal or economic rights. For this reason, largely because of the greater simplicity of the subject-matter, the author's discussions covering the first set of rights—those of fair weather sailing—are strikingly better than those covering the rights at and following failure. His first three chapters, dealing with the legal phrases of the ordinary issue of railroad bonds, are clear and for the most part very comprehensive. The accepted meanings of terms and the ordinary statutory provisions covering railroad obligations and their issue are so well established that the author's sweeping generalities can be accepted without much qualification.

But when the writer comes to the later chapters, dealing with the second set of rights—those to be exercised in case of the bankruptcy of the issuing corporation—he is not so fortunate. The besetting evil is just this over-confidence in legal forms. It is presaged in the fourth page of the introduction to his book when he asserts that "The legal value of a railroad security is the foundation of both its market and intrinsic value." This is a fiction of the legal fraternity. For if there is any one paramount lesson we have learned from the railroad reorganizations of the middle nineties it is that the ultimate test of railroad security lies not in its legality but in its economic position. The amount of respect shown a railroad security by the shrewd business men who act on reorganization committees depends but little upon legal phraseology. It rests merely on the answer to the question, "What does the property behind the security earn?" And the law courts have done their part to destroy our confidence in the strict con-

struction of legal phraseology. Beginning way back in 1879, when the leading case of *Fosdick v. Schall* (99 U. S. 235) permitted a multitude of ordinary current claims to be interposed ahead of mortgage bonds, down to last year, when the Denver & Rio Grande repudiated with impunity its guarantee of the Western Pacific bonds, there has been a decreasing respect for legal form and an increasing reliance on economic postulates. A bond may have all the strength of legal form and all the protecting provisions that a congress of jurists might inject into it, but if the railroad itself—the rails, the ties, and roadbed—has little earning power, the strength of legal phraseology does not help the bondholder in the least. One may hazard the guess that there is no field of modern economic relations where legal phrases count for as little as in railroad reorganization; and as time passes their significance seems to become less. Even the ostensible rights of the holders of receivers' certificates, which every one thought protected by the mantle of the court, have been set aside by the exigencies of economic necessity (Atlanta, Birmingham and Atlantic case).

Besides the author's complacent confidence in legal fictions there are two rather serious faults with the book—its dogmatic tone and the total absence of references. The reader is continuously surprised to find moot questions, particularly questions of priority of rights in the bankrupt estate, dismissed with a single categorical statement. One wishes they were so unequivocal and simple, for one's own peace of mind if for nothing more; but perhaps, after all, it is the eternally new and unexpected that gives that unsatisfied fascination which goes with the study of reorganizations. The other fault, that of a complete absence of references, is inexcusable. Not a single case is cited nor a specific illustration referred to. The author has thus completely obliterated all means of following him beyond his own pages.

The great value of the book is in the clearness of its style and the comprehensive character with which it surveys the legal aspects of railroad bonds and notes.

ARTHUR S. DEWING.

NEW BOOKS

- BARBER, H. L. *Making money make money. A primer of investing.* (Chicago: A. J. Munson & Co. 1916. Pp. 315. \$1.50.)
- BRISCO, N. A. *Fundamentals of salesmanship.* (New York: Longmans. 1916. \$1.50.)

- EASTMAN, G. R. *Psychology for business efficiency.* (Dayton, O.: Service Pub. 1916. Pp. 265. \$2.)
- EHRICH, M. W. *The law of promoters.* (Albany: Matthew Bender & Co. 1916. Pp. 645.)
- FISK, J. W. *Retail selling. A guide to the best modern practice.* (New York: Harper. 1916. Pp. 335. \$1.)
- FITCH, J. K. *The Fitch bond book, describing all important corporation and railroad bond issues of the United States and Canada.* 1916 edition. (New York: Fitch Pub. Co. 1916. Pp. 1035. \$15.)
- FRANCISCO, A. B. *The philosophy of business; a little book for big men.* (Chicago: Wm. H. Pool Prtg. Co. 1916. Pp. 94. \$1.)
- GAHAGEN, W. R. *How to conduct the real estate, insurance and general brokerage business.* New edition. (Cleveland, O.: Realty Bk. Co. 1916. Pp. 125. \$1.)
- GALLOWAY, L. *Organization and management.* (New York: Alexander Hamilton Inst. 1916. Pp. xvii, 504.)
- GILBRETH, F. B. and L. M. *Fatigue study. The elimination of humanity's greatest unnecessary waste. A first step in motion study.* (New York: Sturgis & Walton Co. 1916. Pp. 159. \$1.50.)
- GILMAN, S. *Principles of accounting.* (Chicago: LaSalle Exten. Univ. 1916. Pp. xii, 415.)
To be reviewed.
- GREENDLINGER, L. and SCHULZE, J. W. *Accounting practice.* (New York: Alexander Hamilton Inst. 1916. Pp. xv, 467.)
- GERSTNER, P. *Kaufmännische Buchhaltung und Bilanz und ihre Beziehungen zur buchhalterischen Organisation, Kontrolle und Statistik.* (Leipzig: Tuebner. 1915. Pp. 109.)
- GREENOUGH, A. *Tables of short time bond values, showing the net return figured at true discount from bonds and notes maturing at any time within a period of six months having a coupon payable at maturity.* (New York: Kissell, Kennicutt & Co. 1916. Pp. 183. \$7.50.)
- HALL, H. *How money is made in security investments.* Sixth edition. (New York: De Vinne Press. 1916. Pp. ix, 278. \$2.50.)
- HOLLINGSWORTH, H. L. *Vocational psychology; its problems and methods.* (New York: Appleton. 1916. Pp. xviii, 308. \$2.)
- HOTCHKISS, G. B. *Business English.* (New York: Business Training Corporation. 1916. Pp. 104.)
- HUMPHREY, J. R. and KERR, W. H. *A system of accounts for primary grain elevators.* (Washington: Dept. Agri., Office of Markets and Rural Organization. 1916. Pp. 30. 10c.)
- KEARNEY, L. C. *What every business woman should know.* (New York: Stokes. 1916. Pp. xxiv, 247. \$1.60.)

- KESTER, R. B. *Problems and practice data for elements of accounting.* (New York: Columbia Univ. 1916. Pp. 75.)
- KNOEPPPEL, C. E. *Industrial preparedness.* (New York: Engg. Mag. Co. 1916. Pp. 145. \$1.)
- LAHY, J. *Le système Taylor et la physiologie du travail professionnel.* (Paris: Masson & Cie. 1916. Pp. x, 198. 4.50 fr.)
- LARSON, C. W. *Milk production cost accounts; principles and methods.* (New York: Lemcke & Buechner. 1916. Pp. 60. 75c.)
- MACFARLANE, C. A. *Principles and practice of direct advertising.* (Hamilton, O.: Beckett. 1916. Pp. 190. \$1.)
- MAHONY, P. R. *The export salesman.* (New York: Business Training Corporation. 1916. Pp. 108.)
- MOODY, J. *Moody's analyses of investments.* Pt. 2, *Public utilities and industrials.* Seventh year. (New York: Moody's Investors Service. 1916. Pp. 1876. \$15.)
- PARKHURST, F. A. *The predetermination of true costs and relatively true selling prices.* (New York: Wiley. 1916. Pp. 96. \$1.25.)
To be reviewed.
- ROBINS, K. N. *Farm mortgage handbook.* (Garden City, N. Y.: Doubleday, Page. 1916. Pp. 13, 241. \$1.25.)
- ROBINSON, M. H. *Organizing a business.* (Chicago: LaSalle Exten. Univ. 1915. Pp. vi, 269. \$2.50.)

This is one of a series of texts for a correspondence course in business administration, and should be judged with reference to the purpose for which it was written. It is written in a readable style and there are, here and there, examples of illuminating phrasing which add greatly to the usefulness of a textbook of this type. To quote only one instance, a parallel is drawn (p. 19) between the subjects of commerce and transportation as follows: "Commerce transfers titles; transportation distributes the goods." The author has taken full advantage of the scope offered by the title assigned to him and has wandered over a wide field. As a result, odd bits of discussion of problems of industrial organization, economics, commercial law, accounting, and corporate finance, pass in kaleidoscopic review, with the emphasis chiefly on law and finance. The obvious suggestion occurs that the principles of organization might advantageously have been applied to the book.

Some of the statements of facts are open to question. The standard manuals, for example, do not bear out the implication on page 45 that unlimited liability attaches to the shares of the Adams Express Company. The fact that a reputable trust company serves as registrar for a corporation by no means "guarantees" (p. 36) "that the reputation of the directors and the managers of the corporation are good, and that, in general, financial experts are willing to back the enterprise." There is a satisfactory discussion in

chapter 2 of the advantages and disadvantages of the individual proprietorship. W. H. LOUGH.

ROE, E. T. *The new standard American business guide*. New enlarged edition. (Chicago: G. G. Sapp. 1916. Pp. 512. \$2.)

ROLLESTON, J. *The elements of safe investment*. (London: Investment Registry. 1916. 1s.)

TRUEDELL, L. E. *Amortization methods for farm mortgage loans*. Circular No. 60. (Washington: Dept. Agri., Office of the Secretary. 1916. Pp. 12.)

Correspondence, credits, and traffic. Pt. I, *Business correspondence*, by G. B. Hotchkiss; Pt. II, *Credits and the credit man*, by P. P. Wahlstad; Pt. III, *Traffic*, by P. B. Kennedy. (New York: Alexander Hamilton Inst. 1916. Pp. xxi, 624.)

Digest of the Bills of Lading act. (New York: Guaranty Trust Co. 1916. Pp. 11.)

Expenses in operating retail grocery stores. Bulletin 5, Bureau of Research. (Cambridge: Harvard Univ. Press. 1915. Pp. 14.)

Fundamentals of a cost system for manufacturers. (Washington: Federal Trade Commission. 1916. Pp. 31.)

The Merchants' Association of New York yearbook, 1916. (New York City: The Assoc., 233 Broadway. 1916. Pp. 269.)

Municipal obligations. (Baltimore: Baker, Watts & Co. 1915. Pp. 59.)

Poor's manual of industrials for 1916. (New York: Poor's Manual Co. 1916. \$5.)

Practical steps remaining to be taken in completing the abandonment of ancient customary units by the substitution of the metric system of weights and measures. Discussion. (Boston: Boston Society of Civil Engineers. 1916. Pp. 26.)

Profit sharing by American employers; percentage of profits, special distributions, stock for wage-earners, exceptional—abandoned—proposed plans: examples from England, types in France. (New York: Welfare Dept., Nat. Civic Fed. 1916. Pp. 261. \$2.)

Public utility bonds. (New York: Harris, Forbes & Co. 1916. Pp. 89.)

Registration of trade-marks in Latin America. Revised preliminary report. Tariff Series No. 31. (Washington: Bureau of Foreign & Domestic Commerce. 1916. Pp. 8.)

Rules governing transactions in eggs on the New York Butter and Egg Exchange, Inc., effective July 15, 1916. (New York: N. Y. Butter & Egg Exch. 1916. Pp. 36.)

Sales promotion by mail. (New York: Putnam. 1916. \$2.)

Sixteen hundred business books; a list of authors, by titles, and by subjects. (White Plains, N. Y.: H. W. Wilson Co. Pp. 166. 75c.)

Synopsis of decisions and recommendations relating to freight accounts. (Washington: Assoc. Am. Ry. Account. Officers. 1916. 75c.)

WALKER, F. R. *Building costs and how to keep them.* (Chicago: F. R. Walker, N. Mich. Ave. 1916. \$2.)

A system of accounts for retail merchants. (Washington: Federal Trade Commission. 1916. Pp. 19.)

Capital and Capitalistic Organization

NEW BOOKS

DAVIES, J. E. *Trust laws and unfair competition.* (Washington: Dept. of Comm., Bureau of Corporations. 1916. Pp. liv, 832. 40c.)

Though issued under date of March 15, 1915, this report has only recently appeared. It deals principally with the legislation and judicial decisions of the United States, and the chief foreign countries, on industrial combinations and unfair competition. The report is a veritable compendium upon the subject, containing 830-odd pages and referring to no less than 1150 English, Colonial, and American cases; and, in addition, containing a brief review of the laws of combination and unfair competition in twelve of the leading European countries. The general plan followed throughout consists of a topical arrangement of subjects and a summary of all the important cases bearing upon each subject, the arrangement being chronological so far as possible. As many cases involve more than one principle of law, it is common to find the more important cases referred to in several different connections. Chapter 1 traces briefly the history of anti-trust legislation in the United States; chapter 2 deals with common law decisions; chapter 3 with federal anti-trust laws; chapter 4 with state anti-trust laws; chapter 5 with trust laws in foreign countries; chapters 6 to 10 with unfair competition; and chapter 11 with trade associations. An appendix contains the more important acts of foreign countries dealing with the subjects treated: such as the Canadian Combines Investigation act, of 1910; the German law concerning the sale of potash salts, of 1910; the Rumanian law dividing the output of oil among the various refiners; the Brazilian coffee valorization agreements and laws.

MAURICE H. ROBINSON.

EHRRICH, M. W. *The law of promoters.* (Albany, N. Y.: Bender. 1916. Pp. 645. \$6.50.)

GERSTENBERG, C. W. *Problems in private finance.* (New York: Prentice-Hall. 1916. Pp. 88. 80c.)

INSULL, S. *Some comments on public-utility commissions and their relations with public-utility companies.* (Chicago: S. Insull. 1916. Pp. 19.)

LYON, H. *Corporation finance. Pt. II. Distributing securities, reorganization.* (Boston: Houghton Mifflin. 1916. Pp. 316.)

To be reviewed.

RIPLEY, W. Z., editor. *Trusts, pools and corporations*. Revised edition. (Boston: Ginn and Company. 1916. Pp. xxxiii, 872. \$2.75.)

Almost exactly one third of the book is reprinted from the first edition (1905), while two thirds is new matter. Issued eleven years later than the first edition, this book may serve to emphasize the changes in the trust situation which have taken place during the past decade. Of the three plans most strongly advocated in 1905 for regulating monopolistic and semi-monopolistic corporations in their various forms—federal incorporation, federal license, and publicity—only the latter has been realized and that only very imperfectly. In their stead we have the Federal Trade Commission, the Clayton act, and the "rule of reason" laid down by the Supreme Court in 1911. On account of the changes wrought by the new legislation and the new interpretation of the Sherman act, the revised edition publishes in full the text of the several recent acts and liberal extracts from the opinions of the Supreme Court in the Standard Oil and Tobacco cases and the cases immediately following them, in reasoning as well as in time. As would be expected, considerable attention is given both in the enlarged introduction and in the selected articles to unfair competition as a factor in developing combinations and to the use of patents as a basis of combination. The extract from the opinion of the court in the National Cash Register case illustrates the first; that in the Bathtub Trust case, the second.

The original edition gave some attention to the corporation laws of European countries, especially England and Germany. The revised edition retains all of the old material and adds several chapters on the laws of monopolistic combinations in Europe and on the experiences of Germany with the steel and the potash syndicates. These articles, written by Dr. Francis Walker of the Bureau of Corporations and Dr. Tosdal of the Massachusetts Institute of Technology, supplement the information on American conditions by means of interesting and instructive material illustrative of the experience of the leading industrial countries of Europe, a feature which adds to its value, especially for use in the class rooms of American colleges and universities.

On the whole the editor is to be congratulated upon the skill he has shown in selecting from the enormous amount of available material a group of articles and court decisions which portray so accurately and completely the leading events in the evolution of the trust, pool, and corporation during the past half century.

MAURICE H. ROBINSON.

ROWLEY, S. *The modern law of partnership, including a full consideration of joint adventures, limited partnerships, and joint stock companies, together with a treatment of the uniform partnership act*. (Indianapolis: Bobbs-Merrill. 1916. 2 vols. \$12.)

Bibliography on valuation of public utilities to December 23, 1915. (New York: Am. Elec. Ry. Assoc. 1916. Pp. 72. 50c.)

Public utility reports annotated, containing decisions of the public service commissions and of state and federal courts. (Rochester, N. Y.: Lawyers Coöp. Pub. Co. 1916. Pp. xlv, 1208. \$5.)

Labor and Labor Organizations

An Introduction to the Study of Organized Labor in America.

By GEORGE GORHAM GROAT. (New York: The Macmillan Company. 1916. Pp. xv, 494. \$1.75.)

Professor Groat is a patient and painstaking collector of materials. In this volume are brought together in convenient form many statements made by men holding conflicting points of view in regard to the ideals and methods of organized labor. Indeed, in parts of several chapters the parallel-column method might have been used to advantage. The book should be classified as a source-book in the study of organized labor—unfortunately without exact citation of the sources—rather than as a textbook. In the judgment of the reviewer, the chief value of the book will be for handy reference to the facts relating to the structure and policies of labor organizations in America. Viewed from this angle, the volume is a valuable addition to the literature dealing with the problems of organized labor.

It is the expressed purpose of the author to limit the study to "organized labor." No discussion, for example, appears of such topics as child labor, immigration, sweated labor, or unemployment. However, one chapter is devoted to a presentation of wage theories, a subject certainly more foreign to the study of organized labor than any one of the topics just mentioned. And another chapter is headed Modern Industrialism.

The book is divided into six "parts": the background, the structure, collective bargaining, political activity, transitional stages, conclusion. As might be anticipated, Professor Groat's best work is found in the discussion of the legal aspects of the strike and the boycott. His treatment of Revolutionary Industrial Unionism is likewise excellent.

The author too frequently yields to the temptation of giving new definitions to quite generally accepted terms, or of using new names for certain phenomena. For example, the term "conciliation" is used ordinarily to signify the intervention of a third party representing a private or public organization, in the case of an industrial dispute. For years the word has been thus used by the federal Bureau of Labor Statistics. Professor Groat arbitrarily

rejects this signification of the word, and gives it a new and very different meaning. According to his definition, conciliation is a special form of collective bargaining—no outside parties are concerned. Again, the term "labor unionism" is used (p. 486) to indicate a form of unionism in which many unskilled are found, but which is evidently not of the industrial type. At least two textbooks on organized labor agree in giving a different meaning to "labor unionism."

In two chapters is presented a careful statement of the structure of the American Federation of Labor and of a national union. The author recognizes that the structure of unions is constantly changing and also that different unions present different characteristics. But no adequate analysis is presented disclosing the underlying forces which are making American unionism what it is. A study of the anatomy of unionism is systematically presented; but the more essential and difficult study of the social mechanics of the labor movement is neglected. In the concluding chapters on "unionism," some approach, however, is made to the more significant issues in the study of organized labor.

When the author does sit in judgment upon the policies of organized labor, his conclusions are too often not clean-cut. The inquiring reader is left confronting a maze of generalities. In discussing, for example, the much controverted question of the restriction of output, the following conclusion is reached: "In most cases it should be condemned. But the condemnation should be extended. The system out of which the practices have grown must be adjusted so as to eliminate the unfavorable elements that lead to the trouble. If this is ever done, then the practice of restriction may be unreservedly condemned;—if, indeed, there be any left to be condemned."

A few erroneous statements have crept into the volume. The New Harmony and the Brook Farm communistic experiments are spoken of (p. 24) as contemporaneous. The statement is made that the membership of the American Federation of Labor "is made up principally not of individuals but of trade groups." Of course, individuals do not directly belong to the federation. The next sentence, however, following the one quoted, states correctly that it consists of "trade and labor unions." And, on page 96, it is asserted that city centrals or trades' assemblies as they were originally called, "were formed soon after 1830." On page 28,

however, it is accurately stated that the first one was organized in Philadelphia in 1827.

FRANK T. CARLTON.

Albion College.

Iowa State Federation of Labor. By LORIN STUCKEY. Bulletin of the State University of Iowa. Studies in the Social Sciences, Volume IV, No. 3. (Iowa City: Published by the University. 1916. Pp. 147.)

The primary aim of this monograph is to present the history, the structure and government, the policies, and the influence of the Iowa State Federation of Labor. Seldom has the commonwealth been taken as the unit for the study of trade unionism in America, but the author regards it as the logical area for the investigation of certain phases of the movement, and expresses the belief that a series of monographs will yet be written on organized labor in the various states. He submits his study as a contribution to the history of the labor movement in one state, Iowa.

In the introduction, the writer briefly outlines the early struggles to secure a foothold. Two distinct lines of development are indicated: first, the origin and growth of local trade unions, and their affiliation with the national unions and with the American Federation of Labor; second, the rise and decline of the Knights of Labor in the eighties.

Chapter 1 traces the history of the Iowa State Federation. As in other states, the original purpose of the Iowa State Federation was to influence state and federal legislation. Annual conventions have been held since 1893, with one exception in 1896 when the convention had to be abandoned owing to the financial stringency of the period. The chief feature of these conventions seems to have been the long and comprehensive reports of the officers of the various committees, usually the legislative committee, the executive committee, and the delegate to the American Federation of Labor.

At the Eleventh Annual Convention, in 1903, a resolution was presented calling upon the labor organizations affiliated with the state federation to use a portion of one meeting night each month for the study of social and political economics "so that remedies for the elimination of the evils resulting from our present system of active economics will be made clear"; but the resolution failed to secure the endorsement of the convention.

Chapter 3, Structure and Government, clearly indicates that the voluntary character of the organization must necessarily limit its usefulness. In the first place, the allegiance of the affiliated local trade union is not only divided, but every one expects it to be more loyal to the national organization of the craft than it is to the state federation. The national trade union very properly comes first in the estimation of all union men. The local union is also more closely in touch with the central trades and labor union of its own locality than it is with the state-wide movement. Moreover, if there is a trades council nearby, the local union feels that it has more in common with this body than it has with any other trades federation. The State Federation is merely one of a group of units loosely held together by ties of common interest and of group loyalty. No one questions the right of a local union to secede if it so desires.

In view of this lack of authority, the policies of the state federation (ch. 4) are not particularly aggressive. The federation, however, can safely promote the use of the union label, and a rising vote has been called for, at each annual convention since 1910, to designate the users of the union label:

"Members whose clothing bears the union label, will please rise."

"All members who purchase only union made cigars, will please rise."

"All members who burn union mined coal, will please rise."

"All members who insist that union clerks wait on them, will please rise;"

and so on until twelve votes have been taken.

A state-wide educational campaign in the interest of trade union principles and methods is also considered an important function, and labor papers, monthly pamphlets, reports, and publications relating to different phases of the labor problem are used to carry the message to the general public.

The federation has placed itself on record as opposed to compulsory arbitration, incorporation of trade unions, and contract convict labor; and has advocated industrial education, restricted immigration, workmen's compensation, child labor legislation, and woman suffrage. It has sought to secure legislation looking toward federal and municipal ownership of natural monopolies, and has favored the initiative and referendum in state politics. The federation has not openly opposed prohibition, neither has it taken a stand in favor of it. Again and again the liquor interests have attempted to array organized labor against prohibition with-

out success. For example, at the Twenty-second Annual Convention in 1914 one resolution that aroused considerable debate aimed to put the federation on record as "unalterably opposed to any action of Congress in enacting any legislation that would in any way restrain, suppress, or stop the manufacture and sale of malted or spirituous liquors in any part of the United States." The resolution was defeated by a vote of 69 to 38. The refusal to endorse this resolution was in accord with the consistent policy of the federation to hold itself aloof from partisan strife. The federation has steadfastly declined to take part in politics, apparently choosing to be an open forum and to preserve the freedom of speech and thought of all its members rather than to take sides and to divide its forces.

The leaders who have been responsible for the policies of the federation, have felt, first of all, that they must bring the various unions more closely together, and then consolidate their line by advocating those issues on which practically the entire membership could agree.

Throughout the monograph, the author confines himself to a simple statement of fact and does not attempt to give a critical analysis. There is nothing spectacular in the story, and it could be duplicated in any number of other states. The author in his final chapter concludes that "both consciously and unconsciously organized labor has exerted a considerable influence upon the history of Iowa in recent years because of the fact that its leaders have been prominent in the formation and execution of the modern humanitarian and industrial problems of the state."

WILLIAM KIRK.

University of Rochester.

The Control of Strikes in American Trade Unions. By GEORGE M. JAMES. Johns Hopkins University Studies in Historical and Political Science, Series XXXIV, No. 3. (Baltimore: The Johns Hopkins Press. 1916. Pp. vii, 131. \$1.00.)

This study of the restraint and discipline with which trade unions use their most effective militant weapon, the strike, is of timely interest in view of the oft recurring conflicts of labor and capital in the present period of general business prosperity. A comprehensive investigation is made of the regulations and practices of national unions in the matter of strike control as disclosed in trade union documents, personal correspondence, and inter-

views. In his introduction the author indicates the close connection between the effectiveness of the strike and the growth of organization. Strikes are dangerous and costly. Whatever may be won through them must be retained. The growth of labor organizations to their maturity makes for the efficient control of strikes. To the popular fallacy that trade unions foment strikes the trade unionist replies: "Young and weak unions have many strikes; old and strong ones have few. If unions were mere striking machines, the opposite would be true." Organization and discipline are essential to collective bargaining. Hence most labor leaders are taught by experience the importance of moderation. The law of the survival of the fittest thus has brought about a more or less complete control of strikes in many unions, while in others the value of such control is recognized.

In successive chapters the author treats of the evolution of strike initiation from local autonomy to control by the general or national union, and of the exercise of control in the work of the national deputy or agent, in the requirement of arbitration, in the detailed rules by which local unions may initiate strikes, in the practice of unions dealing with strikes undertaken independently of national authority, and in the management, financing, and termination of strikes.

The extent of control, as well as the methods of exercising it, varies in different unions. Thus, there are still a number of national unions whose locals have complete autonomy in strike initiation, a second group comprising some twenty building trade unions from strategic necessity permit independent strikes under certain circumstances, while a large number of other unions forbid any strike without official sanction and supervision. The older national unions, such as the Iron Molders, the Bricklayers and Masons, the Cigar Makers, and the Typographical Union, have attained a more complete control than the more recently organized unions. Complete control is found in all the railroad brotherhoods. The methods of control consist of strike supervision by a national deputy, of arbitration either under a general requirement or according to agreements specifically requiring arbitration of disputes, and of discipline by fine, suspension or withdrawal of benefits for the flagrant violation of the rules governing the initiation and management of strikes.

The independent strike is defined as one inaugurated by the local union without the consent of the officers, or without com-

pliance with the rules, of the national union. Sympathetic strikes are an insidious form of independent strike. Three main forces making for the elimination of the illegal strike have been: (1) the growth of a national policy in regard to organization and beneficiary features, (2) the necessity of the enforcement of agreements with employers, and (3) the necessity of discipline to keep local unions from disruption and destruction through unwise and hasty strikes. Sixty national unions attempt to have a representative at each threatened or actual strike to take command of the situation, to compose differences and to keep the local members from falling apart in factional dissension and strife. The efficiency of the "deputy system" is attested by the fact that it is found in wide use and wherever the national union really controls strikes.

Perhaps the largest factor of control is the centralization of the collection and payment of strike benefits in the hands of national officers. Instead of the former dependence upon voluntary contributions or assessments of local unions after a strike has occurred, strike reserve funds have been established in some sixty-five unions. Tables are inserted in the chapter on strike benefits which show for some of the older unions the amount of strike reserve funds and total benefits paid out over certain periods of years. Their chief significance is that they show the great cost of strikes to the unions. National rules govern the accumulation and distribution of strike benefits as to amount, conditions, and length of period of payment. It is the claim of some trade unionists that strike reserve funds have the influence of decreasing strikes and of lessening failures. The power of sustaining members is the key to success in any strike. The provision of "the sinews of war" and the perfection of organization for inaugurating a successful strike may win at once the objects sought and thereby render its occurrence unnecessary.

The author has made an informative presentation of the regulative machinery of trade unions for the successful initiation and management of strikes. He fails, however, to present any conclusions concerning the social significance of complete control. Does it mean that the aims of trade unionism may be accomplished with a decreasing number of strikes and at much less social cost? Industrial peace is a goal of the future desired by all classes. The improved control of strikes in each of its phases must be of appreciable consequence in so far as it obviates industrial strife. A summary or reasoned unifying of results is noticeably lacking;

otherwise, this first survey of the field makes a substantial addition to the group of specialized studies of trade unionism made in recent years.

F. E. WOLFE.

Colby College.

European Regulations for the Prevention of Occupational Diseases. By DEPARTMENT OF LABOR, STATE OF NEW YORK. Special Bulletin No. 76, issued under the direction of the Industrial Commission. (Albany. March, 1916. Pp. 77.)

Twenty-three selected regulations from five European countries, are here published in full, covering certain metal poisonings, dusts, gases, fumes, vapors, infective materials, humidity in cotton factories, laundries, and compressed air. Most of them are from the British Factory and Workshop Orders. France, Germany, Austria, and The Netherlands are also cited. It is worth noting that the regulation from The Netherlands upon compressed air is much more specific and extensive than the standard bill advocated with varying success for two years by the American Association for Labor Legislation.

The selection is meant to include "the regulations of latest adoption for a number of industries, each of which is also represented in New York State." In 1913, New York (as also a number of other states) began the delegating of authority for framing specific rules and regulations for the conduct of particular industries to an industrial board or commission, thus quitting the old order of statutory regulations, the impracticability of which has long since been obvious. Hence the system of "administrative orders" characteristic of European countries comes about, to all intents and purposes, in American procedure.

Any prejudice against the citation of these European regulations under almost any pretext is unsound since a vast part of their past experiences are our present ones. A number of other works in English also include direct selections from such regulations; for example, Rambousek's *Industrial Poisoning*, Oliver's *Dangerous Trades*, and *Lead Poisoning*, and especially the bulletins of the United States Department of Labor; while practically all the most important have been published in the bulletins of the International Labor Office.

No one who studied many of these regulations with the idea of their application in this country, could but be convinced of the

great amount of experience that many of them represent and of the care spent in the preparation to make them practical. In the sections on "ventilation" and "temperature," drafted for the manufacture and decoration of pottery in Great Britain and issued in 1914, one is particularly impressed with the practical application to which our most modern researchers in this field have been put. The compilers of the New York bulletin under "white lead" might well have included the French decree of July 10, 1913, abolishing the use of white lead by painters, especially since a British report has recently advised similarly.

The American, however, must first accept the logic that the only cure for civilization is more civilization, hence more regulations and more specific ones and their enforcement, as population, congestion, and stress increase. Flaring examples of our lack are the Iroquois, Triangle, General Slocum, Eastland, and similar holocausts. In spite of these, we continue to hear industrial managers protest loudly against the "oppressive" laws and regulations of industry in this country. But with the non-prevention of these extreme disasters, one may only conjecture what the situation must be in the field of the more slowly progressive industrial hazards such as fatigue, ventilation, illumination, etc. The solution appears to be the "get-together" committees of employers, employees, and experts to draft suitable rules and regulations. An illustration is the New York Industrial Code, which to date has grown quite extensive and is a model for others.

Publicity given to foreign regulations such as these should be greatly extended, even to inclusion in trade and commercial journals, for by no more feasible method, probably, can industrial America come to heed and to compete with the great efficiency and economy of the systems abroad.

EMERY R. HAYHURST.

Ohio State University.

NEW BOOKS

- BARNETT, G. E. and McCABE, D. A. *Mediation, investigation, and arbitration of industrial disputes.* (New York: Longmans. \$1.25.)
- BLOOMFIELD, M. and WILLITS, J. H., editors. *Personnel and employment problems in industrial management.* (Philadelphia: Am. Acad. Pol. & Soc. Science. 1916. Pp. viii, 236.)
- BUTLER, C. V. *Domestic service. An enquiry by the Women's Industrial Council.* (London: Bell. 1916. Pp. 148. 1s. 3d.)

FUSTER, E. *L'organisation nationale du placement à l'étranger pendant la guerre.* (Paris: Secrétariat Général. 1916. Pp. 22.)

KOBER, G. M. and HANSON, W. C. *Diseases of occupation and vocational hygiene.* (Philadelphia: P. Blakiston's Sons & Co. 1916. Pp. xix, 918. \$8.)

LAUCK, W. J. and SYDENSTRICKER, E. *Conditions of labor in American industries.* (New York: Funk & Wagnalls. 1916. \$1.75.)

MARQUIS, F. *Handbook of employments in Liverpool.* (Liverpool: Educational Committee. 1916. Pp. 277.)

MESS, H. A. *Casual labour at the docks.* (London: Bell. 1916. Pp. 148. 2s.)

PIGOU, GREENWOOD, WEBB, and ZIMMERN. *Reorganization of industry.* (Oxford: Ruskin College. 1916. Pp. 85. 7d.)

The American Labor Year Book, 1916. Prepared by the Department of Labor Research of the Rand School of Social Science. (New York City. Pp. 382.)

This is a useful compendium. Mr. Hillquit has written the introduction, and occasional brief articles are the work of Mrs. Kelly, Messrs. Price, Rubinow, Nearing, Bourne, and many others. The information is commonly well selected but is often meager in comparison with the argument. A very long chapter on the international socialist movement is included, the other leading chapters being on labor unionism, the law's attitude toward labor, the socialist movement in the United States, social and economic conditions, and on government and politics. Some of the articles, like Mr. F. C. Howe's on "Economic Imperialism," go far afield; on the other hand, ampler treatment of the American labor subjects is much to be desired.

The year 1916 has given us also a *British Labour Year Book* about twice the size of this volume, broader in its treatment and not disproportionately emphasizing socialism. Such a volume is more useful than its American counterpart.

R. F. F.

Factory and workshop orders and regulations. (London: King. 1916. 2s. 6d.)

Industrial conditions after the war. (Liverpool: Fabian Soc. 1916. 1 1/2d.)

Miscellaneous labor laws of New York, 1916. Printed in advance, from the annual report. (Albany: Dept. Labor. 1916. Pp. 127.)

Sunday, the world's rest day, an illustrated story of the 14th International Lord's Day Congress. (New York: Doubleday Page. 1916. Pp. 622.)

Ministry of munitions. Notes on the employment of women on muni-

tions of war with an appendix on training of munition workers. (London: King. 1916. Pp. 94.)

Statistics of industrial accidents, 1914. (Albany: N. Y. Dept. Labor. 1916. Pp. 77.)

Money, Prices, Credit, and Banking

Principles of Money and Banking. A Series of Selected Materials with Explanatory Introductions. By HAROLD G. MOULTON. (Chicago: The University of Chicago Press. 1916. Pp. xl, 502. \$3.00.)

Exercises and Questions for Use with "Principles of Money and Banking." By HAROLD G. MOULTON. (Chicago: The University of Chicago Press. 1916. Pp. xi, 95. 50 cents.)

Readings in Money and Banking. By CHESTER ARTHUR PHILLIPS. (New York: The Macmillan Company. 1916. Pp. 845. \$2.10.)

Since the panic of 1907 there has been a sustained interest in the subject of money and banking in the United States. Following the panic, the investigations and the report of the National Monetary Commission, the discussion of the finally rejected Aldrich scheme, the enactment of the federal reserve law, and the strain that the outbreak of the Great War placed upon the American financial structure combined to keep the subject constantly before the American public. This unusual combination of circumstances stimulated an extraordinary demand for books and for articles discussing the numerous aspects of the problem, and as is usually the case under such conditions, there resulted an even more extraordinary increase in supply.

Heretofore books on money and banking have been constructed on more or less conventional lines. One knew fairly well about what to expect. Today, however, the individual contributions to the literature are more specialized, and while they are in consequence more thorough, taken together they are entirely too comprehensive for class-room or for general use. Hence there has been felt a need for broadly selected readings, supplying the necessary descriptive and illustrative material and at the same time indicating the fundamental principles according to which such material might be interpreted. The two books under review aim to supply this need.

In achieving their purpose, however, the two books follow different paths. Professor Moulton's book is divided into two main

parts, money and banking, each of which is divided into numbered sections resembling chapters and bearing definite titles. The numbered sections are further subdivided into lettered divisions in which are grouped under appropriate heads the individual selections. These selections are numbered consecutively from the beginning of the book to the end. The numbered sections dealing with practically self-contained topics are supplied with introductory paragraphs aiming to provide a setting and to give a certain unity to the individual selections. These introductory paragraphs are, however, entirely too short to permit Professor Moulton's book to stand alone. It must be used in combination with a good text, or in connection with lectures.

Since the book appeared Professor Moulton has published a small booklet of questions and problems following the arrangement of the text and aiming to bring out the underlying principles. The book is thus a counterpart in the field of money and banking of the Chicago *Materials for the Study of Elementary Economics* with its accompanying *Outlines*.

Professor Phillips's book is more closely knit together. Instead of taking a large number of selections merely illustrative of the principles involved and setting them down individually, Professor Phillips chose from different writers what seemed to him the best available discussions of the principles themselves, and these discussions with correlative descriptive matter he wove together into approximately complete chapters. Hence, while Professor Moulton's book impresses one as an interesting and valuable congeries of readings, Professor Phillips's book leaves the impression of an organized treatise.

The ground covered by both compilers is approximately the same, although there is, of course, wide divergence of detail. In connection with money, both deal with the origin and function of money, with the standard question in its various ramifications, and with present-day money systems. Moulton, however, gives too much space to bimetallism and very little to the important question of the value of money. On the latter subject Phillips supplies an interesting symposium on the relation between money and general prices. In connection with banking the subject-matter in the two books is more divergent. Both deal with the general principles of banking, with clearing, etc. Both also give material on the federal reserve system and on banking reform in the United States. Each is interested in the subject of agricultural credit. Moulton

alone, however, includes selections on coöperative credit and on investment banking. On the other hand, Phillips gives six chapters to foreign banking while Moulton gives practically nothing. Phillips also has an interesting chapter on the Great War in relation to banking and finance.

The choice to be made between the two books depends upon what one thinks a book of readings ought to comprise. If one favors a large number of loosely connected selections the choice would devolve upon Moulton. If, on the other hand, one prefers something more organic and more closely knit together, Phillips would be preferred. The reviewer believes that for class-room purposes the two books can be used with advantage to supplement each other. Outside of the class room both would have to be used in connection with a good text.

EUGENE E. AGGER.

Columbia University.

NEW BOOKS

- ALCORN, E. G. *The duties and liabilities of bank directors*. Third edition, revised. (Indianapolis: U. S. Bank Note Co. 1916. Pp. 167. \$1.50.)
- BLANCHET, A. and DIEUDONNÉ, A. *Manuel de numismatique française*. Vol. II, *Monnaies royales françaises depuis Hugues Capet jusqu'à la Revolution*. (Paris: Picard. 1916.)
- FOGG, L. A. *Bankers' securities against advances*. (London: Pitman. 1916. Pp. 115. 5s.)
- FOWLER, C. N. *An American banking system, from "National issues of 1916."* (New York: Bankers Pub. Co. 1916. Pp. 225. \$1.)
- MYRICK, H. *The federal farm loan system, new method of farm mortgage finance, under national supervision*. (New York: Orange Judd Co. 1916. Pp. 239. \$1.)
- NEWELL, E. F. *The dated Alexander coinage of Sidon and Ake*. (New Haven: Yale Univ. Press. 1916. Pp. 72. \$3.)
- PATTERSON, E. L. S. *Notes on foreign exchange and a glossary of financial terms*. (Toronto: Shaw Corres. School. 1916. Pp. 236.)
- VENN, T. J. *United States half cents; a treatise on the interesting copper coins struck by the United States government, with various periods of intermission, from 1793 to 1857*. (Chicago: The author, 2034 Lane St. 1916. Pp. 24. 50c.)
- WITHERS, H. *International finance*. (New York: Dutton. 1916. Pp. 183. \$1.25.)

Acceptances. Their importance as a means of increasing and simplifying domestic and foreign trade. (New York: Am. Exch. Nat. Bank. 1916. Pp. 48.)

Banking law of New York; chapter 2 of consolidated laws, chapter 369, laws of 1914, with notes, annotations and references. (New York: Bank Law Pub. 1916. Pp. vi, 531. \$3.50.)

Banking, Pt. I, Banking principles, by J. F. JOHNSON; Pt. II, Banking practice, by H. McN. JEFFERSON; Pt. III, Foreign exchange, by F. ESCHER. (New York: Alexander Hamilton Inst. 1916. Pp. xx, 568.)

Comparative statistics on foodstuffs and fuel for the three years as shown in a budget of the annual cost of living of a family of five persons, based on prices prevailing in April of each year. (Olympia, Wash.: State Bureau of Labor. 1916. Pp. 3.)

Modern banking; a practical treatise, illustrating the daily routine of a national bank. (Battle Creek, Mich.: Ellis Pub. Pp. 57. 75c.)

Moratorium. Lagstiftning om betalningsanstand samt annan extraordinär lagstiftning under kriget 1914-1915. Vols. I and II. Compiled by A. KOERSNER and C. DICKSON. (Stockholm: Swedish Banks Association. 1915. Pp. 708; 453.)

A collection of the edicts and ordinances that have been issued and promulgated respecting the moratorium. For Sweden, Denmark, and Norway, the original language of the documents has been employed, as also for English, French, and German texts. The Dutch, Italian, Portuguese, Russian, and Spanish texts have been given in the original languages together with Swedish translation.

Swedish banking companies, 1824-1913. Published for the San Francisco Exhibition by the Swedish Banks Association. (Stockholm: Bröderna Lagerström. 1915.)

Public Finance, Taxation, and Tariff

The Single Tax Movement in the United States. By ARTHUR NICHOLS YOUNG. (Princeton: Princeton University Press; London: Humphrey Milford, Oxford University Press. 1916. Pp. x, 340. \$1.50.)

The author tells us that he has "undertaken to give a complete historical account of the single tax movement in the United States, together with a discussion of the tactics of the single taxers, their program, the present status of the movement, and its influence upon economic thought and upon fiscal and social reform." The result is an excellent historical account, and it may be called fairly

"complete" as to the political side of the movement. Perhaps it would be too much to demand that it might have contained more concerning the disciples of Henry George and their writings.

The first chapter of the book gives in very brief compass, far too brief for thoroughness, an outline of the "anticipations of Henry George's ideas."

The best part of the book seems to be that which sets forth the economic background from which Henry George drew so many of his ideas. It deals with the economic life of California between 1858 and 1877. It is a period the record of which is almost as useful for the economist as the experimental laboratory is to the chemist. For the "argonauts" were adapting their institutions to new lands and new condition and tried many experiments and expedients. The confusion as to land titles, the rush of settlers impatient at any obstacles which stood in their way to acquire property, the more impatient because the obstacles were "foreign" and based on Spanish and Mexican laws and customs with which they were unfamiliar, the sudden rise of land values, "unearned increments" growing overnight, the bloody and legal fights between the squatters and the holders of the "grants," all these were conspicuous facts in California in Henry George's day. Whether the "ecstatic vision" (p. 45) from the hilltop back of Oakland is a rhetorical afterthought or not, these stirring facts might well have sown in a "brooding mind" like George's the root ideas of *Progress and Poverty*. At all events they furnished him the illustrations.

The account of the "land question" in California is slightly marred by a willingness to pass judgment on the merits of disputes on which history has not yet had its final say. These judgments although sustained by citations from contemporary historians may be in error, but whether so or not they were not necessary to the narrative.

The reception of *Progress and Poverty*, the rapid rise of Henry George from an obscure printer to "the distinguished author," his branding as a "dangerous, socialistic-minded citizen," the New York mayoralty campaigns, the episode of Father Glynn and the "New Crusade," the split with the labor party, the "invasion of Delaware," are topics that are especially well handled. Less incisive is the presentation of the history of the Fels Fund and accompanying activities, especially the Oregon campaigns. If, for example, as is pertinently stated (p. 207) the Fund propaganda

has given opportunity for "professional" anti-single tax workers, has it not also created "professional" pro-single tax workers?

One little error not very important may be mentioned. The author accepts, with some apparent doubt, the claim of the single taxers working under the Fels Fund that the "exemption of improvements in irrigation districts in California" was a victory for the single tax. The fact is that this is nothing more (not "little more") than an application of the principle of special assessments.

Under the caption "single tax tactics" is an excellent account of the subterfuges, such as the "home rule movement" behind which some single taxers have consented to stand. This chapter also contains an account of the Fairhope Colony.

The chapter on the single tax and the taxation of land values (ch. 13) is worthy of special notice because of the careful and accurate distinctions which are made between different forms of special taxes on land and also for the outline of the differences between single taxers themselves.

No attempt is made to criticise the doctrines. But a good summary is given of the objections that have been raised by economists. So the reader is put in position to judge for himself. After all can more be done? It is well pointed out that the doctrine of Henry George rests on an assumed "natural law" and that if this natural law does not seem as "natural" to you or to me as it did to Henry George there is nothing more to be said. It is interesting to note that the author has not thought it necessary to present at any length the arguments as to the sufficiency of revenues, nor to discuss at length the question as to whether the increment of land value is earned or unearned. He has confined his citations mainly to those who have squarely asserted the usefulness of private property in land as a social institution.

CARL C. PLEHN.

University of California.

The Tariff Problem in China. By CHIN CHU. Columbia University Studies in History, Economics and Public Law, Vol. LXXII, No. 2. (New York: Longmans Green and Company. 1916. Pp. 192. \$1.50.)

The fiscal system of China exhibits the somewhat striking peculiarity of being, in certain of its chief elements, designed by the foreigners, who are its real authors, to favor the foreigner at a sacrifice of Chinese interests. This sacrifice has the widest scope,

being disastrous to the whole life of China in its material, intellectual, political, and moral aspects, without even the merit of benefiting the foreigner, upon whose commercial interests in China it reacts almost as disastrously.

China is deprived of revenue desperately needed, by the maintenance, through treaties, of duties on exports and imports extremely low, nominally 5 per cent (without distinction between necessities and luxuries, raw materials and finished products), and on the whole much less than 5 per cent as a result of price changes through some decades. British, French, Russians, and Japanese have extorted a further reduction at certain frontiers. Thus it comes about that in 1911, for example, the total revenue from import duties amounted only to \$8,000,000 or \$9,000,000 (U. S. gold). As Mr. Chu wisely remarks, the aim of China's tariff is neither protection nor revenue but only the receipt of revenue sufficient to pay part of her obligations to foreign creditors. Treaties with foreign powers, extorted by military force, have further brought it about that, on goods transported from place to place within Chinese territory, the foreigner is much less heavily taxed than his Chinese rival. By a similar singular discrimination foreigners are permitted to carry on manufacture or trade at certain designated places with approximate or entire exemption from the taxes to which the native man of business is subject.

The inability of the Chinese government to make use of what is in other countries a chief source of revenue has been a principal contributing cause of the poverty which defeats or impedes all projects of reform. As a result, in large part, of treaties extorted by military force and preventing the imposition of proper taxes it is impossible to abolish other harmful taxation (especially the inland duties harmful to trade), since no revenue from any source can be spared; or to reform the judiciary and develop the systems of education and transportation, since these improvements are expensive; or to make honesty in the civil service practicable by paying adequate salaries. By this sacrifice of China's welfare the foreigner attains whatever commercial advantage may be expected to result from a system which cripples the government and stifles the economic growth of a customer nation.

Dr. Chu's historical and critical discussion of this matter is eminently fair, with due acknowledgment of China's share of fault, but it is also keen and enlightening. His argument for freedom of trade in China is especially striking—to the effect that the

rather dubious reasons for protection elsewhere have even less force in China; since the economic revolution there is a change in the nature of consumption, in contrast with the European and American revolution in productive methods. Free importation would permit the desirable development of new wants.

It may be thought that Dr. Chu is needlessly concerned about the "unfavorable" balance of China's trade. The excess of imports is explainable, like the same phenomenon in other countries, by facts which no system of duties would substantially affect. The book is good enough to deserve a full index and a bibliography would add to its great value.

A. P. WINSTON.

NEW BOOKS

- BROWN, J. R. *A plain talk on taxation.* (New York: Manhattan Single Tax Club. 1916.)
- DAVIES, E. F. *The finances of Great Britain and Germany.* (London: Unwin. 1916. Pp. 61. 2d.)
- DAUDÉ, B. *Le protectionnisme et l'avenir économique de la France.* (Paris: Giard & Brière. 1916.)
- GUEVARA, L. *Towards reorganisation of international finance.* (Bradford, Eng.: Privately printed. 1916. Pp. 85.)
- HIGGINSON, J. H. *Tariffs at work. An outline of practical tariff administration. With special reference to the United States and Canada.* (London: King. 1916. 2s.)
- HUART, A. *Finances de guerre comparées. Le change, le crédit, la situation économique et financières des belligérants.* (Paris: Giard & Brière. 1916. 2.50 fr.)
- LYONS, T. E. *On increasing public expenditures and the cause. Is there a remedy? Delivered before a meeting of assessors of incomes at Madison, Wis., Feb. 10, 1916.* (Pp. 19.)
- MATSCHECK, W. *Report of a survey made for the Milwaukee Taxpayers' League.* (Madison: Milwaukee County School of Agriculture and Domestic Economy. 1916. Pp. 73.)
- SALERNO, G. R. *Scienza delle finanze.* (Florence: Barbera. 1916. 2.50 l.)
- SNELLING, W. E. *Excess profits and excess mineral rights duty. With regulations of the commissioners of inland revenue and the provisions of the income tax acts.* (London: Inland Revenue Dept. 1916. Pp. 73. 6d.)
- SYDENSTRICKER, E. *A brief history of taxation in Virginia.* (Richmond: Legislative Reference Bureau of Virginia. 1915. Pp. 66.)

RUMMING, T. W. *Taxation in a nutshell*. (London: Sutton. 1916. 6d.)

WHITE, J. D. *A scheme for land-value taxation*. (London: King. 1916. Pp. 16. 3d.)

Comparative salary data; obtained from the payrolls of fourteen cities in the United States, forty-eight private establishments in Philadelphia and salary standardizations of seven American cities for one-hundred and twenty-eight positions in municipal service. (Philadelphia: Bureau Munic. Research. 1916. Pp. 76.)

Financial statement of the budget, 1916-17, with statement of rates of income tax and super tax. (London: King. 1916. 3d.)

The Fitch record of government debts. (New York: Fitch Pub. Co. 1916. Pp. 312. \$10.)

Tax law of the state of New York; being l. 1909, chap. 62, entitled "An act in relation to taxation, constituting chapter sixty of the consolidated laws," with all amendments made at the legislative session of 1916. (New York: Baker, Voorhis. 1916. Pp. 263. \$1.50.)

Population and Migration

NEW BOOKS

BLONDEL, G. *Le problème de la population, conférence.* (Paris: Lethielleux. 1916. 0.60 fr.)

BRANDT, L. *Facts about the death-rate. Twenty-seven diagrams with descriptive text.* (New York: School of Philanthropy. 1916. Pp. 45.)

FONKALSRUD, A. O. *The Scandinavian-American.* (Minneapolis: K. C. Holter Pub. Co. 1915. Pp. 167. 75c.)

GIDE, C. *De la reconstitution de la population française.* (Paris: Giard & Brière. 1916. 1.50 fr.)

HOFFMAN, F. L. *The mortality from cancer throughout the world.* (Newark, N. J.: Prudential Press. 1915. Pp. 826. Gratis.)

Declining birth-rate; its causes and effects. Being the report of and the chief evidence taken by the National Birth-rate Commission. (London: Chapman & Hall. 1916. Pp. xiv, 450. 10s. 6d.)

Social Problems and Reforms

NEW BOOKS

BLOOMFIELD, M. *Readings in vocational guidance.* (Boston: Ginn. 1916. Pp. 738. \$2.25.)

BRANDT, L. *Facts about tuberculosis. Twenty-one diagrams with brief descriptive text. Studies in social work no. 8.* (New York: School of Philanthropy. 1916. Pp. 39.)

- EISENMAN, C. *Everybody's business. A business man's interpretation of social responsibility.* (Cleveland: Burrows Bros. Co. 1916. Pp. 166.)
- FARRAR, F. A. *Factories and great industries.* (New York: Putnam. 1916.)
- GILLMAN, F. L. *The workers and education.* (London: Allen & Unwin. 1916. Pp. 68. 1s.)
- HARRISON, S. M., director. *The Springfield survey.* (New York: Russell Sage Foundation, Dept. of Surveys & Exhibits. 1916.)
- HOLLINGSWORTH, H. L. *Vocational psychology. Its problems and methods.* (New York: Appleton. 1916. Pp. xviii, 308. \$2.)
- KNOEPPPEL, C. E. *Industrial preparedness.* (New York: Engg. Mag. Co. 1916. Pp. 145. \$1.)
- KOREN, J. *Alcohol and society.* (New York: Holt. 1916. Pp. 271. \$1.25.)
- MARQUIS, F. J., editor. *Liverpool. Handbook of employments in Liverpool.* (Liverpool: Education Committee. 1916. Pp. 277. 1s.)
- MILLS, W. T. *Democracy or despotism.* (Berkeley, Calif.: Intern. School of Social Economy. 1916. Pp. xiv, 246.)
- OLIVER, T. *Occupations from the social, hygienic, and medical points of view.* (Cambridge: Univ. Press. 1916. Pp. 120. 6s.)
- PROUD, E. D. *Welfare work. Employers' experiments for improving conditions in factories.* (London: Bell. 1916. Pp. 380. 7s. 6d.)
- RAUSCHENBUSCH, W. D. D. *The social principles of Jesus; written under the direction of Sub-committee on College Courses, Sunday School Council of Evangelical Denominations and Committee on Voluntary Study, Council of North American Student Movements.* (New York: Assoc. Press. 1916. Pp. 198. 50c.)
- SHELTON, A. W. *The people's housing. The effect of the Finance act, 1910, on the building of cottages.* (London: Coöperative Prtg. Soc. 1916. Pp. 8.)
- WATKINS, J. A. *Health conservation at steel mills.* Technical paper 102. (Washington: Dept. of Interior. 1916. Pp. 36.)
- WILSON, R. J. and RATHBUN, W. L. *A study on food with special reference to the food value of the dietary at the New York City Municipal Sanatorium.* (New York: Dept. of Health. 1916. Pp. 17.)
- Government of the City of Rochester, N. Y. General Survey, Critical Appraisal and Constructive Suggestions.* Prepared for the Rochester Bureau of Municipal Research by the New York Bureau of Municipal Research. (Rochester, N. Y. 1915. Pp. 546.)
- When the Rochester Bureau of Municipal Research became in-

incorporated in 1915, it started out with a twofold purpose: (1) To get things done for the community through coöperation with public officials, by increasing efficiency and eliminating waste. (2) To serve as an independent, non-partisan agency for the purpose of keeping the public in touch with the city's business. The bureau assumed from the first that men in the public service will do their work faithfully and well, if they are not hampered by conditions that should not exist. Consequently, it planned to help public officials remove these handicaps so that they may be as free to introduce efficient methods as private officials are.

The first step in this constructive program was a careful, comprehensive analysis of the city government by a group of specialists representing the New York Bureau of Municipal Research, for the purpose of furnishing the people of Rochester with accurate information about their city's affairs.

The most important chapter of this report contains a valuable Summary of Suggestions, some of which can be made effective without a change in the city charter and others that will require a charter amendment before they can be adopted. In the succeeding chapters there is a detailed description of each of the municipal departments, with particular reference to budget methods, contracts and supplies, the Department of Public Safety—comprising the Bureaus of Police, Fire, and Health—the Department of Charities, the Department of Public Works, the Department of Engineering, and Parks and Playgrounds.

Although many serious defects are brought to light in the course of the investigation, the report is most severe in its criticism of the Department of Public Works and the Department of Charities. When we have read chapter after chapter of shortcomings and failures, and then turn to the general conclusions, we are indeed surprised to find this extremely significant statement:

"Rochester holds to the old style of charter—a mayor and a council made up of twenty-three members, one from each ward. The New York Bureau of Municipal Research has made administrative studies in some fifty different local governments and comprehensive studies of twenty-five city governments, and, notwithstanding the fact that Rochester still retains the old type of organization, the results and conditions which were found there are superior to those which have been found in any other city."

With this useful source of information to draw upon, the Rochester bureau will now strive to get the city administration to follow many of the suggestions which the New York bureau makes. The local organization is financed for the next five years by Mr. George Eastman, while the general supervision of the work is in the hands of eleven prominent business and professional men of Rochester who form the board of trustees.

WILLIAM KIRK.

New York City conference of charities and correction. Proceedings of the sixth conference, May 25-27, 1915. (New York. 1916. Pp. 266.)

Report of the welfare work for employees for 1915. (New York: Metropolitan Life Insurance Company. 1916. Pp. 15.)

Second annual report of the commissioner of labor and industry of the commonwealth of Pennsylvania, 1914. Pt. I, *Production, wages, employees, welfare, and educational work.* (Harrisburg, Pa.: Dept. of Labor & Industry. 1915. Pp. 579.)

Second report of the Central Control Board (liquor traffic) appointed under the Defence of the Realm (amendment no. 3) act, 1915, being report to March 31, 1916. (London: Wyman. 1916. 4d.)

A vocational guidance bibliography prepared for school and public libraries and arranged especially for youths, teachers, and specialists. (Sacramento, Calif.: State Board of Education. 1916. Pp. 24.)

Insurance and Pensions

The Essentials of the Fire Insurance Business. By EDWARD AUGUSTUS KETCHAM. (Madison, Wisconsin: The author. 1916. Pp. 301.)

The author has been for ten years an examiner in a state insurance department and his purpose in writing this book is stated to be "to place in convenient form the essential elements relating to the fire insurance business . . . for the student." The following chapters occupy 218 of the 301 pages and constitute the important part of the book: History of Fire Insurance (two chapters), Rating of Risks, Fire Insurance Accounting, and Examination of a Fire Insurance Company. The last two chapters, which are based upon the author's experience as an examiner, are the best part of the discussion. The book is almost wholly descriptive, with much detail in parts of it. The style is good, but there is a lack of unity and logical arrangement, each chapter reading as if it had been prepared as a paper or as an address. There is little discussion of the fundamental principles underlying fire insurance or of the concrete problems which arise in the conduct of the business.

In the chapter on Basic Principles of Insurance one reads (p. 4): "It [insurance] must have existed from the beginning of history." Mutual helpfulness or human coöperation doubtless did exist, but insurance as a business certainly did not. The technical definition of insurance is given as "indemnity against loss." Few students of life insurance, as well as of some other forms of insur-

ance, would accept this definition. Indeed, the courts have sometimes refused to accept such a definition of fire insurance. It is stated (p. 7) that the "insurance companies frequently put up large sums of money as a guarantee of their good faith in carrying out their contracts"; and (p. 8) "that stock companies are required to have a cash capital in order to guarantee the carrying out of their contracts." It is not the capital stock contribution even in stock companies which is of chief significance in the protection to policyholders. The capital stock, either of life or fire companies, is usually an insignificant sum in comparison to their total liabilities. It is the reserve which is required to be set aside, and the valuation of the assets under the regulations of the states and other regulatory laws which gives the real guaranty to policyholders. The capital fund becomes of significance only at times of crises in the history of the companies, as, for example, when a conflagration occurs.

In the chapters on the History of Fire Insurance a fruitless effort is made to trace insurance back to the code of Hammurabi. Modern business institutions are in almost every instance a product of modern times, and insurance is no exception to the general rule. The history of fire insurance in the United States is divided into four periods: Formation time, 1721-1835; reservation, 1835-1866; coöperation and rates, 1866-1911; growth of government insurance, 1906 to the present. The logic of such a division is very questionable. Reservation no more characterizes the period 1835-1866 than it does the present period. The period 1866-1911 is called "coöperation and rates," yet the author states (p. 59) that "the period covered from 1874-1880 is known as the time of demoralization." Demoralization and coöperation are usually considered mutually exclusive, and as a matter of fact much of the period 1866-1911 was characterized by rate wars and rate cutting and little coöperation among fire insurance companies.

In the chapter on rates a few pages are devoted to the Mercantile and Dean schedules now in general use, and almost twice as many pages to a proposed system of rating which has not been applied in practice. The author seems to think that rates based upon experience will be superior to the present systems, chiefly because there will be in the experience rates no arbitrariness or judgment. Whatever may be the merits and need of an experience system of rate making, there will be in any such system elements of judgment and arbitrariness. The fire insurance rate is a price

set for the production of a service, the cost of which can not be known at the time the sale is made. Experience and classification will be of great service in devising proper fire insurance rates, but no such system has yet been suggested which is free from arbitrary and judgment considerations. The classification itself is arbitrary; likewise, the grades of occupancy, the classification of cities and other parts of the several systems of experience grading which have been recently proposed.

One of the several examples of illogical arrangement which may be noted is in chapter 11 where Building Material is included with Agency Management. Chapter 8 is a discussion of Fire Prevention and chapter 6 of Fire Hazard. Either chapter would seem to be a more logical place to discuss building material. Chapters 10 and 11, devoted respectively to discussion of Fire Insurance Accounting and Examination of a Fire Insurance Company, are interesting and valuable chapters, although they contain some questionably relevant material; as, for example, a discussion of the operation and evils of private detective agencies (pp. 226-231). If the author had expanded these two chapters to cover the material in the other nine chapters, his book would have been more of a contribution to the literature of insurance; for there is need of a book on the examination of fire insurance companies as a companion volume to Wolfe's *Examination of Life Insurance Companies*.

No index is provided; and this in a book lacking unity, and almost wholly descriptive in character, becomes a more than ordinarily serious defect.

WILLIAM F. GEPHART.

Washington University.

Health Insurance. Its Relation to the Public Health. By B. S. WARREN and EDGAR SYDENSTRICKER. Public Health Bulletin No. 76. (Washington: United States Public Health Service. 1916. Pp. 76.)

In the history of the health insurance movement in this country this little pamphlet has played a historic role, the importance of which can not be overestimated. The studies upon which it is based were begun under the auspices of the United States Commission on Industrial Relations, and thus there is attached to them the weight of double government authority, for both the Commission on Industrial Relations in its majority report and

the United States Public Health Service in many statements have gone on record in favor of compulsory health insurance. The fact that the chief of that important influential and popular branch of the national government at the time of the appearance of this study happened also to be the president of the American Medical Association, and soon after, in his presidential address before the annual convention of the association in June of the current year, advocated compulsory health insurance, further emphasizes the numerous branches of the useful work the study had already accomplished.

Because of this official standing, and also perhaps because of the opportunities for wide and free distribution which are available to government documents, the study of Dr. Warren and Mr. Sydenstricker has already succeeded in doing a very great amount of publicity work. It was the most quoted and perhaps the most widely read of all the propaganda publications on health insurance which appeared during the last year.

Before the detailed questions of ways and means are approached, a hearing for the general idea of a proposed reform must be obtained. The pamphlet is not so much a study of health insurance as an existing institution in its effects upon public health, as an argument for health insurance with reference to the public health problems which are largely incidental.

This appears very clearly from the table of contents. After a brief reference to some general estimates as to the prevalence and cost of sickness among wage-workers (estimates which unfortunately have been given too great a publicity by proselytes and have opened a line of attack to opponents), the authors discuss the conditions causing sickness among wage-workers, such as occupational diseases, irregularity of employment, unhealthful conditions of living, economic status of wage-workers, etc., and thus the general thesis of a relationship between poverty and disease is established.

Following this, the responsibilities for conditions causing disease are taken up, with the obvious purpose of establishing a division of responsibility between employer, employee, and the state, as a basis for a division of costs in accordance with the British practice and the standards of the American Association for Labor Legislation. This is the largest part of the study. The final section (pp. 53-68) entitled, "Health insurance: a health measure," contains a brief outline of a health insurance scheme.

On the whole, the study is less satisfactory in its outline of constructive proposals. The "Standards of Health Insurance," recommended by the Social Insurance Committee of the American Association for Labor Legislation early in 1915 and reproduced in Appendix III (p. 77) have been followed rather faithfully, but the comments upon them are rather hazy and nebulous, and this is somewhat disappointing especially when dealing with the problem of organization of medical aid, the problem which calls for most particular inquiries both from physicians and laymen. Some suggestions are of a decidedly doubtful character, as, for instance, the suggestion for a uniform \$7 a week cash benefit (p. 56) or the approval of the British Panel system with a uniform capitation charge (p. 60) because "the payment of the physicians, regardless of whether their patients are sick or well should offer every incentive to physicians to keep their patients well." One is tempted to raise the question why a form of payment which is "regardless of," etc., should have this effect any more than the direct opposite of total indifference to the results of one's labor. Occasional statements of doubtful accuracy are found, such as the following:

The British National Insurance Act does not provide a funeral or death benefit, and the omission of this important provision resulted in the selling of death benefit policies at exorbitant rates by commercial insurance companies, which under the act had organized "approved societies" among their own policyholders.

Of course it was not the omission of the funeral benefit which has resulted in the selling of death benefits (life insurance) policies, but rather the causal connection was reversed, the influence of industrial life insurance companies in Great Britain being sufficiently great to prevent the inclusion of funeral benefits into the act. It does not appear how the organization by these companies of approved societies among their own *policyholders* could have increased their life insurance business. Of course the membership of these societies, is not at all limited to the policyholders. Furthermore, it is not scientifically accurate to speak of "exorbitant rates." It is not that the rates are improperly computed, taking the existing conditions of insurance into consideration, but that the existing conditions are bad and socially wasteful, that gives the basis for any criticisms against industrial life insurance.

The reviewer may be forgiven for taking advantage of this opportunity to point out a statistical error which occurs in con-

nection with the study of the real wages. In quoting the "index of real wages," 1900-1912, as constructed by me¹, the authors state: "Thus the tendency towards exaggeration of the upward trend of wages is evident, since a large number of purely skilled trades are included and many of the most extensive unskilled and poorly paid industries are omitted" (p. 5, note).

This is a common statistical misunderstanding. It is evidently assumed that the wages of skilled trades have increased more rapidly during the twelve years than the wages of unskilled labor. Without statistical evidence such an assumption is unjustified. The writers were possibly misled by the subconscious suggestion that "higher wages" are the same as "wages getting higher."

From the point of view of constructive legislation the most valuable suggestions of the authors are those which aim towards some plan of close coöperation between the new insurance carriers to be created and the existing public health agencies, which have shown such splendid development not only in the federal government but also in several states. In such coöperation may be found a new and powerful lever for raising the general standards of public health.

I. M. RUBINOW.

San Francisco, California.

NEW BOOKS

BARRÈRE, B. *L'assurance sur la vie, moyen de crédit.* (Paris: Fontemoing. 1916. Pp. 102. 2.50 fr.)

BREARLEY, H. C. *Fifty years of civilizing force; an historical and a critical study of the work of the National Board of Fire Underwriters.* (New York: Stokes. 1916. Pp. 340. \$2.50.)

BROOKS, C. E. *Life insurance for professors. A study of the problem of protection for the families of salaried men.* (Berkeley: University of California Press. 1916. Pp. 30. 25c.)

This reprint of pages 83-113 of volume 4, number 2, of the *University of California Publications in Economics* is of particular interest in connection with the so-called Confidential Report of the Carnegie Foundation relative to their plan for changing from a pension to an insurance-investment basis. So serious is the question of insurance, investment, and pension for the college professor that this work by Brooks should have widespread and careful consideration. The author distinguishes sharply between insurance and investment, and this distinction should be made much more thoroughly than it is by the Carnegie Foundation. He points out that life in-

¹ AMERICAN ECONOMIC REVIEW, vol. IV (Dec., 1914), pp. 793-817.

insurance for the protection of the children of a family has a close analogy with fire insurance, because, in so far as the support of a family is concerned, early death represents total loss, later death only partial loss, and death near the age of sixty-five practically no loss. By taking out insurance strictly for the protection of the family on the term basis, the premiums to be paid with advancing age diminish; for, although the rate per thousand increases, the amount of protection needed diminishes more rapidly. Other questions, such as the protection of a wife, are also treated. What the salaried man needs is protection for his children, protection for his wife, and protection for his old age. If, after insuring himself for these purposes, he has further funds to invest, there are many channels for investment which are available. It is to be hoped that the Carnegie Foundation has given, or will give, this pamphlet very careful consideration.

EDWIN BIDWELL WILSON.

CONNOR, J. F. *Employers' liability, workmen's compensation and liability insurance; the distinction between the liability to pay compensation and the liability for damages for injuries which are not within the compensation act of New York state.* (Chicago: Speculator Co. 1916. Pp. 262. \$5.)

HAYDEN, H. R. *Annual cyclopedia of insurance in the United States, 1915.* (Hartford, Conn. 1915. Pp. 542. \$2.50.)

PARKER, A. J., JR. *Insurance law of New York, being chapter 28 of the consolidated laws and chapter 33 of 1909, including all amendments of 1916, with notes and annotations.* (New York: Banks Law Pub. Co. 1916. Pp. 451. \$3.)

PRITCHETT, H. S. *A comprehensive plan of insurance and annuities for college teachers.* (New York: Carnegie Foundation for Advancement of Teaching. 1916. Pp. 97.)

SCHONFELD, J. *Le risque de guerre en matière d'assurances maritimes.* (Paris: Dalloz. 1916.)

SHERMAN, P. T. *Liability and workmen's compensation insurance on the reciprocal or inter-insurance plan.* (New York: G. I. Wilson & Sons. 1916. 25c.)

VENN, T. J. *Life insurance catechism; a treatise on protection, by means of questions and answers, in terms comprehensible by the general reader.* (Chicago: Theodore J. Venn. 1916. Pp. 40. 50c.)

Dividends in life insurance, showing premiums received, dividends paid to and surplus accumulated for policyholders by twenty-six American level premium companies to January 1, 1916. (New York: Speculator Co. 1916. 25c.)

Reports of decisions on appeals and applications under section 67 of the National Insurance act, 1911, and section 27 of the National Insurance act, 1913. Part II. (London: Wyman. 1915. Pp. 190.)

Unemployment insurance. Decisions given by the umpire respecting claims to benefit. Vol. 2, nos. 501-1000. (To April 22, 1915.) (London: Wyman. 1915. Pp. 429.)

Workmen's compensation law of the state of Kentucky, April, 1916. Workmen's compensation law of the state of Maryland, May, 1916. (New York: Roy Press. 1916. Pp. 39, 44. 25c. each.)

Workmen's compensation law of the state of New York. Revised with amendments, May, 1916. (New York: G. I. Wilson & Sons. 1916. Pp. 63. 25c.)

Pauperism and Charities

NEW BOOKS

BUTLER, A. W. *Indiana. A century of progress. A study of the development of public charities and correction. 1790-1915.* (Indianapolis: Board of State Charities. 1916. Pp. 154.)

DEVINE, E. T. *Pauperism: an analysis.* Studies in social work, no. 9, (New York: N. Y. School of Philanthropy. 1916. Pp. 19. 10c.)

HECHT, S. and HOCHFELDER, J. *Charity inspector and social investigator: examination instruction; a course of instruction for candidates for institutional inspector, social investigator, inspector State Board of Charities, charity application investigator, etc.* (New York: Civil Service Chronicle. 1916. Pp. 148. \$3.)

LOCH, C. S. *Charity and social life. A short study of religious and social thought in relation to charitable methods and institutions.* (London: Macmillan. 1916. 6s.)

Committee on unemployment and relief. Report. (Denver, Col.: The Committee. 1916. Pp. 47.)

Forty-fourth annual report of the L. G. B., 1914-1915. Part I. Administration of the poor law, of the unemployed workmen act, and of the old-age pensions acts. Cd. 8195. (London: Wyman. 1916.)

Socialism and Co-operative Enterprises

The Next Step in Democracy. By R. W. SELLARS. (New York: The Macmillan Company. 1916. Pp. 272. \$1.50.)

This is a book of considerable interest; not because it makes any specific contribution to socialist theory, but because it shows the point of view of a professor of philosophy who is something of a sociologist and economist as well and is able to correlate his knowledge in a very effective way.

Like most intellectuals, Professor Sellars may be classed as a revisionist, although he does not seem to care whether the characteristic Marxian theories are revised or discarded. Indeed, he

says that the orthodoxies of socialism are quite comparable to those of the churches and nearly as harmful in their consequences. Too much stress has been laid upon them by socialists and orthodox economists, with their endless controversies about unessentials. And yet, Professor Sellars holds that the Marxian theories have been justified historically, in that they have helped to give voice to the masses and drive home to the thinker their point of view in such a way that it could not be ignored. "Theories may possess truth by their very orientation and by the purpose which they subserve, even though the overt elements in them must ultimately be given up and replaced by other distinctions and formulations which are more exact."

There is an obvious inconsistency in the author's statements, which, however, he could easily remove by admitting that economists have done a service to the cause of truth in exposing fallacies and forcing socialists back upon fundamentals. Even so the dogmas of the churches have done good in their day, while the new theology deserves the credit of sweeping away error and showing the foundations of religion lying broad and deep below.

Professor Sellars' views regarding the essentials of socialism are well expressed in his excellent definition:

Socialism is a democratic movement whose purpose is the securing of an economic reorganization of society which will give the maximum possible of justice, liberty and efficiency, and whose plan is the gradual socializing of industry to the degree and extent that seem experimentally feasible. Along with this process will take place those political and legal and institutional reforms which even individualism is coming to regard as necessary.

In the light of this definition it is clear that most social reformers, including probably a majority of economists, should be classed as socialists; although it is a question whether the regular army of class-conscious socialists would welcome such a large number of recruits. Indeed, one wonders whether the author himself would be hailed as a comrade by any but the most tolerant of socialists.

In later chapters Professor Sellars goes so far as to doubt the very foundations of democracy, although he repeatedly asserts his belief that they are quite secure. Even in the United States the triumph of democracy is not complete, and there are many countries that are obviously not ready for the forms of democracy which have been tolerably successful with us. Optimistic inter-

nationalism has not sufficiently considered the hindrances due to race and environment, the inertia of mankind, and the slow movement of evolution. Still, social changes take place with comparative rapidity now-a-days, and there is reason to hope that in the course of time democracy will prevail in most if not all countries, and that there will be a gradual reorganization of society in the direction of the socialist ideal. This, presumably, is the next step in democracy indicated by the title of the book.

J. E. LEROSSIGNOL.

University of Nebraska.

NEW BOOKS

- BOULANGER, O. *L'internationale socialiste a vécu.* (Paris: Ollendorff. 1916. 3.50 fr.)
- GEBHARD, H. (Edited by L. SMITH-GORDON.) *Coöperation in Finland.* (London: Williams & Norgate. 1916. 5d.)
- GORDON, F. G. R. *The case against municipal ownership.* (Haverhill, Mass.: Record Pub. Co. 1916. Pp. 55. 25c.)
- HUTCHINSON, R. H. *The "socialism" of New Zealand.* (New York: New Review Pub. Assoc. 1916. Pp. x, 155.)
- MAILLARD, C. *Le socialisme et la reconstitution intégrale de la France.* (Paris: Attinger. 1916. 1 fr.)

Statistics and Its Methods

NEW BOOKS

- BOWLEY, A. L. *The nature and purpose of the measurement of social phenomena.* (London: King. 1916. 3s. 6d.)
- BROOKE, STOKES & Co. *Comparative railroad statistics.* (Philadelphia: E. S. Paret & Co. 1916.)
- DUBLIN, L. I. *Vital statistics in relation to life insurance.* (New York: Metropolitan Life Ins. Co. 1916. Pp. 8.)
- FRANKEL, L. K. and DUBLIN, L. I. *Heights and weights of New York City children 14-16 years of age. A study of measurements of boys and girls granted employment certificates.* (New York: Metropolitan Life Ins. Co. 1916. Pp. 53.)
- WILBUR, C. L. *Federal registration service of the United States: its development, problems, and defects.* (Washington: Bureau of the Census. 1916. Pp. 86.)
- General statistics of cities: 1915. Including statistics of governmental organizations, police departments, liquor traffic, and municipally owned water supply systems, in cities having a population of over 30,000.* (Washington: Bureau of the Census. 1916. Pp. 185.)

Occupations of the people. Fifth census of Canada, 1911, Vol. VI. (Ottawa: Dept. of Trade and Commerce, Census and Statistics Office. 1915. Pp. 469.)

Official yearbook of the commonwealth of Australia. Statistics for period 1901-1914. No. 8—1915. (Melbourne: G. H. Knibbs, statistician. 1916. Pp. 1127.)

Report of the secretary of state (New York) of the enumeration of inhabitants, 1915. (Albany. 1916. Pp. 1379.)

This is accompanied by a portfolio containing maps of Manhattan, Brooklyn, The Bronx, Tonawanda, Rochester, and Buffalo.

United States life tables. 1910. Prepared under the supervision of J. W. GLOVER. (Washington: Bureau of Census. 1916. Pp. 65. 75c.)

Résultats statistiques du recensement général de la population en 1911. (Paris: Berger-Levrault. 1916. 7.50 fr.)

Resumen anual de estadística municipal (año XII, 1914). (Montivideo: Direccion de censo y estadística de Montivideo, Uruguay. 1915. Pp. 365.)

DOCUMENTS, REPORTS, AND LEGISLATION

Industries and Commerce

SOUTH AMERICAN LUMBER MARKETS. The first note of optimism in the dismal tune to which American lumber interests have been listening for the past few years has been struck in two reports issued by the Bureau of Foreign and Domestic Commerce, United States Department of Commerce, and known as Special Agents Series Numbers 112 and 117, entitled respectively *Lumber Markets of the East Coast of South America* (pp. 121) and *Lumber Markets of the West and North Coasts of South America* (pp. 148). The author of each is Mr. Roger E. Simmons. The investigation treats individually all the important South American countries.

There has been a notable lack of authentic information in the United States, even among lumbermen, as to actual conditions in South America, the general impression being that only a small market is possible due to the facts that the southern continent is well supplied with cheap labor and an abundance of native forests. These reports ought to go a long way toward dispelling such notions by giving concrete information covering the multiple "kinds, dimensions, costs, prices, uses, etc., of imported lumber"; by calling attention to such special lumber products as flooring, ceiling, boxes, shooks, doors, windows, barrels, lath, and poles; by discussing present trade methods; and, finally, by suggesting new ways for American trade expansion. Mr. Simmons' study reveals that while South American countries are rich in standing timber yet large areas are so disadvantageously located that the cost of logging is prohibitive and a great part of the more accessible wood is inferior to that imported.

The United States supplies the bulk of foreign woods, the Southern yellow pine dealers being the chief shippers to the east coast, and the Douglass fir (pino de Oregon) men to the west and north coasts. But the same old story of careless handling of exports and ignorance of South American ways, so painfully evident in other industries, apparently holds true in the lumber trade, for Mr. Simmons found that "a conspicuous feature of the yellow pine business is the frequency of claims and controversies over measurements." Our Northwest shippers have been more careful in filling orders but they have failed to appreciate the possibilities of developing trade and appear to have little knowledge of actual business conditions as is seen by the fact that in all his researches on the east coast the author came across only one piece of advertising for Douglass fir, and this was practically valueless because it was printed in English.

According to Mr. Simmons, South Americans do not know how to use lumber. The statement is reiterated that American dealers could increase their sales by educating the natives to abandon their adobe huts in favor of inexpensive, sanitary bungalows built from American wood. In short, the reports say to the lumbermen: The opportunity is there. What are you going to do about it?

While the studies are comprehensive and enlightening, they are of only relative practical value in some respects. For instance, the author urges American dealers to form foreign selling agencies for exploiting South American markets, but is discreetly silent as to the attitude of Washington officials in such a case. Northwest shippers, however, have not forgotten that in the past their tentative plans to form such associations died prematurely under threat of prosecution as violations of the federal anti-trust law. There are also other aggravating questions at home, such as a sufficient supply of cars to make possible the filling of the orders already in, which must be settled before cutting the juicy pie held by the South Americans.

E. C. ROBBINS.

University of Oregon.

NAVIGATION LAWS AND GOVERNMENT AID TO MERCHANT SHIPPING. The high ocean freight rates and inadequate ocean service occasioned by the European war have resulted in more widespread consideration of the merchant marine problem throughout the United States than seemed possible a few years ago. Though the American tonnage engaged in the foreign trade declined from 2,496,894 in 1861 to 782,517 in 1910 and 1,066,288 on June 30, 1914—just before the outbreak of the war—the general public did not seem to be interested. There usually was sufficient tonnage in our trade with Europe, even though most of it was foreign, to render an efficient service. Few besides those who were interested in the trade with South American and other non-European countries and had to depend upon an ocean transportation service that was inferior to the service between Europe and these outlying markets, and such Americans as wished to operate merchant vessels in the foreign trade, clamored for conditions that would cause an increase in the registered tonnage of the United States. But the war vitally affected the shipping conditions confronting the trade with Europe; the war shortage in ocean tonnage commanded the attention of the country.

It was appropriate, therefore, that the Bureau of Foreign and Domestic Commerce should issue a report containing detailed information

concerning the *Navigation Laws* of the United States and the five leading foreign maritime countries, and another on the methods of *Government Aid to Merchant Shipping* in the United States and abroad (Special Agents Series, Nos. 114, 119; pp. 190, 265; 20c., 25c.). Both volumes were prepared by Mr. Grosvenor M. Jones, Commercial Agent of the Bureau, although in the preparation of the report on *Navigation Laws* he was in collaboration with the Bureau of Navigation and the Steamboat-Inspection Service.

The report on *Navigation Laws* is especially welcome because it contains much information on a technical subject concerning which little authentic data had previously been published. The general *Navigation Laws of the United States*, 1915 edition, as published by the United States Bureau of Navigation, comprises a volume of 585 pages. Shipping men had frequently expressed a desire that these laws be simplified in some way so that those against or in favor of whom they apply might know exactly what to expect. More serious, however, is the charge—frequently made—that the navigation laws of the United States are more severe than those of competitive foreign countries, and that therefore they constitute a burden on such American shipping as is engaged in the foreign trade.

This report on *Navigation Laws* neither upholds nor disproves explicitly the charge of unreasonable burden. It, however, places before Congress and all those interested a compact statement of the contents of the main navigation statutes of the United States, Great Britain, Germany, Norway, France, and Japan. The navigation laws of each of these countries are divided into nineteen groups, six of which include the laws affecting the vessel, and thirteen of which include those affecting the officers and the crew. First the laws regulating the registry of vessels are described for each of these countries; then those concerning the measurement of vessels, construction and equipment of vessels, inspection of vessels, loading of vessels, and tonnage dues. The laws affecting officers and crew are similarly divided as follows: nationality of officers; nationality of crew; number of officers; number of crew; age, physical condition, ability, and experience of officers and crew; shipping agreements; wages; provisions and water for crew; quarters for crew; hours of labor; hospital accommodations on vessels; and desertion. The report also contains a statement covering the administration of the navigation laws in the six countries; various appendixes concerning measurement rules; another on ship classification societies; and a detailed bibliography.

The report as a comparative study is of real value to such readers

as will read its complete text carefully. It does not point explicitly to the particular differences between the navigation laws of the United States and those of Great Britain, Germany, or the other countries included in the report; i. e., it does not in passing from one group of laws to another indicate just how or where those of the United States are more stringent or more lenient than those of the other countries. The Bureau has rendered a valuable service in providing in a relatively small volume much of the necessary comparative material. The value of the report would have been even greater if a comparative chapter or two had been added.

The report on *Government Aid to Merchant Shipping* was compiled in the preparation of the report on *Navigation Laws*, it being the original intention of the Bureau to include both subjects in one report. Its plan differs from the report on navigation laws in that it contains a full introductory or comparative chapter, defining terms and classifying the principal kinds of government aid into groups. First it divides indirect forms of aid into the following groups: reservation of coasting trade, exemption from import duties on shipbuilding materials, admission of foreign-built vessels to national registry, preferential railway rates, loans to shipowners, reimbursement of port dues, etc., reimbursement of canal dues, and exemption from taxation. Then it discusses direct money aid under the headings of partial subventions, bounties or subsidies, and subventions to foreign steamship lines. In connection with each type of aid is given a list of the countries in which it is found. The introductory chapter then summarizes the policy of government aid separately for each of the principal maritime countries. It also contains sections on state-owned steamship lines, state control of privately owned steamship companies, and state participation in the profits of steamship lines.

The body of the report consists of nine chapters which contain an account of the various kinds of government aid to merchant shipping in all countries where any appreciable aid has been given. The description in these chapters is arranged by countries. In the appendixes are given various subvention contracts and subsidy statutes and regulations.

The report on government aid does not adhere to the neutral policy pursued in the report on navigation laws. While it does not expressly advise against subventions as an American policy, the general effort to disprove its desirability is noticeable. In foreign countries where shipping has grown, the importance of direct government aid is generally minimized; and those in which shipping has grown less rapidly

are cited as evidence that direct government aid is ineffective. France, as has so frequently been done, is given as the cardinal example of the failure of direct government aid in a country where economic conditions do not in themselves lead to an increasing merchant marine. Does not the experience of France rather teach a lesson to the effect that different types of direct government aid must be carefully distinguished? That her general subsidies or bounties have been a failure is clearly evident. But France, as is true of most other countries where general subsidies are paid, is gradually shifting in the direction of specific subventions. The latter are paid to selected French lines which are by contract required to perform prescribed services. There is no evidence that this part of the French policy of direct government aid has been ineffective. Indeed the greatest lesson to be learned from foreign experience is that direct money aid, to be effective, must be restricted to a limited number of lines that operate under definite subvention contracts.

In discussing American ocean shipping various changed conditions are noted in the report as indicating less need for government aid than in the past. That conditions, on the whole, are more favorable than a decade ago, is granted; although many will not admit into their evidence all the changes referred to in the report (pp. 35-36). The reduced capital costs occasioned by the adoption of the free shipping policy in 1912 and 1914 is referred to; but no reference at this point is made to the higher operating costs of American vessels as compared with foreign ships, nor to the effect of the Seamen's act upon the operating costs of American vessels on the transpacific route.

This criticism is directed only against the way in which the facts that were so painstakingly collected are interpreted in the report. Yet even those who may agree with this criticism will find the report a valuable document. The detailed and up-to-date information contained in it concerning the forms and amounts of government aid in the various shipping countries makes the volume an exceedingly welcome one. Both of the reports reviewed in this note as well as Mr. Jones's excellent recent report on *Ports of the United States* should prove of lasting value to all who are interested in the future progress of the country's trade and shipping.

GROVER G. HUEBNER.

University of Pennsylvania.

PORTS OF THE UNITED STATES. The report made by Mr. Grosvenor Jones for the Bureau of Foreign and Domestic Commerce on the

Ports of the United States (Miscellaneous Series No. 33, 1916, pp. 431) is an attempt to modernize the official report on this subject in part 3 of the *Report on Transportation by Water in the United States*, issued by the Bureau of Corporations in 1910. It is also the answer to a resolution adopted by the American Association of Port Authorities at its second annual convention in New Orleans in 1913, requesting the Secretary of Commerce

To collect, compile, and disseminate information showing the character of ownership and administration of terminal and other facilities in the United States and their position; a description of the physical equipment of the same; the charges on goods and ships, if any; the regulations governing the use of port facilities; and other such information as the Secretary of Commerce may deem useful.

The basis of the book is twofold: the answers to a schedule containing inquiries which was sent to the mayors of 576 cities; and visits by Mr. Jones to Atlantic Coast, Gulf, and Great Lakes ports.

The ports here treated are those which have a "water-borne commerce" amounting to 1,000,000 short tons in volume or \$30,000,000 in value in the calendar year 1913. Information for each port is given in the following respects: physical description, railroads, steamship lines, commerce of the port, extent and ownership of waterfront, terminals, kind of wharf construction, port administration, port charges. For the larger ports a map is given.

Such a book could not be prepared without containing a great deal of useful information which otherwise could be secured only by consulting a collection of the handbooks and reports of commercial bodies at the various ports. Interesting is the description of the administration of the publicly owned waterfronts of New Orleans and San Francisco, with their belt lines.

One of the difficulties that beset publicly owned railroad terminals in North Atlantic ports is set forth in the book. Forty years ago, in order to offset the centralization of the export and import trade in New York, railroad carriers with terminals at other points—Baltimore, Philadelphia, Newport News, Norfolk, Boston, Portland—instituted the habit of building piers and giving them free to steamship lines which would dock there. The purpose and effect was to offer them a subsidy not to go to New York where the pier rentals were high. Another subsidy was contained in the port differentials, or lower rates from the West, applying to ports from Philadelphia to Norfolk inclusive. Steamship lines plying from these lower ports could charge, in their ocean rate, a higher rate than they could charge from New

York, yet have the through charge from interior American points to foreign destination the same.

When Boston started to have state-owned piers, it very soon found that this practice of the railroads, in giving free piers to the steamship company, made impossible economic results from state-owned piers. The railroads charged the steamship companies nothing for the use of their piers. The state could get steamship lines to come to its piers only on condition that it offered them the same terms; namely, no rental at all.

Obviously, this condition was a very practical deterrent to port development by public authorities. It seemed foolish for the state to build piers and turn them over free to steamship lines if the railroads were willing to do this. And yet every one familiar with the situation saw and felt that it was not a desirable one. The railroad had an exclusive contract with the steamship company docking at its pier, and so managed that it carried practically all of the western traffic that moved over that steamship line. The railroad's competitors got nothing of this traffic to carry and had little interest in the steamship line in question. The advantages of state-owned piers are not theoretical, but very practical.

Moreover, in these "railroad ports" the practice is for a flat export rate to apply only when traffic passes over the piers of the railroad pier owner. When traffic is to be exported at any other point in the port, the flat rate plus a switching charge is necessary in order to get it on the wharf. This latter condition has been remedied by the Interstate Commerce Commission in *Mobile Chamber of Commerce vs. Mobile & Ohio Railroad Company* (32 I. C. C. 272).

In this decision the commission ordered the Mobile & Ohio Railroad to quote a local rate to Mobile 3 cents per hundred pounds lower than its present export rate. The 3 cents higher export rate is to provide for the delivery at ship-side on any pier in Mobile.

The other feature of the situation can be remedied only if the railroad will allow privately owned or state-owned piers, out of the through railroad rate, an allowance equal to the cost, per ton of traffic handled, of operating the railroad piers. If it is worth the railroad's while to maintain and operate a railroad pier at a cost of 30 cents per ton of traffic handled over those piers, then it ought to be willing, and it ought to be forced, to give that same allowance to state-owned piers which take the place of the railroad's own facilities.

E. J. CLAPP.

New York University.

EXPORT TRADE SUGGESTIONS is a bulletin of 140 pages in the Miscellaneous Series of the Bureau of Foreign and Domestic Commerce. It has been prepared chiefly for American manufacturers who, hitherto, have catered only to the domestic market, but now are undertaking to inform themselves regarding foreign trading methods. Some of the material is here published for the first time; but the careful readers of *Commerce Reports* will recognize a good deal of material as having been reprinted from various issues of the year 1915. The Bureau of Foreign and Domestic Commerce has done a valuable service, however, to the business interests of the country in gathering together and systematizing numerous articles, submitted mainly by its special agents, commercial attachés, and American consuls, which deal with different aspects of our foreign trade.

The first 22 pages constitute an appropriate introduction, covering the general principles underlying export policies. The leading article is by Dr. E. E. Pratt, Chief of the Bureau, and consists of an address, entitled "The Making of an Export Policy," delivered at New York last December before the International Trade Conference held under the auspices of the National Association of Manufacturers. Following the introduction is a series of articles, varying in length from several pages to merely a few lines, classified according to the following topics: representatives and agencies, finances and credit, quotations, postal services, correspondence and translations, coöperation with consuls, packing, advertising, transit centers, and general trade extension.

Though difficult to generalize, it may perhaps be stated with accuracy that the various articles are practical in nature, each constituting a specialized treatment of some point or points which are important factors in selling goods abroad. Many valuable suggestions are offered to our manufacturers and exporters which, if heeded, would undoubtedly lead to greater satisfaction among foreign consumers of American goods. Furthermore, some of the methods followed by our foreign traders in exploiting the overseas market come in for rather severe criticism. The value of such suggestions and criticism is all the greater because they are based not upon theory but mainly upon first-hand observations made in the various parts of the world where the goods are marketed, and upon a knowledge of the tastes, fashions, and other social or racial characteristics which are powerful factors in foreign trade.

AVARD L. BISHOP.

Yale University.

COTTON REPORTS. Two reports recently issued by the Department of Commerce indicate significantly the increased attention which the department is giving to marketing methods and problems in its studies of foreign trade: *Cotton Goods in China* and *Cotton Goods in the Straits Settlements*, by Ralph M. Odell (Washington, 1916, Special Agents Series Nos. 107, 115; pp. 242, 57; 25c., 10c.). The reports are similar in plan. In each there is a brief description of the resources and transportation facilities of the country, an analysis of the statistics of the import and export trade in cotton goods, and an explanation of the requirements of the markets. The report on the Chinese trade explains carefully the reasons for the fluctuations in the exports of cotton goods from America to China and especial attention is given to Japanese competition. The policies of American manufacturers and selling agents in handling this foreign trade are criticised. It is stated, for example, that they have failed to give adequate consideration to the advantages to be gained through granting exclusive agencies to Asiatic importers in the trade in branded goods.

MELVIN T. COPELAND.

There has been published as Senate Document No. 316 (Washington, Jan. 20, 1916, pp. 62) Part I of *Electric Power Development in the United States*, a letter from the Secretary of Agriculture transmitting a report, in response to a Senate Resolution of February 13, 1915, as to the ownership and control of the water-power sites in the United States. The report is published in three parts, only Part I, which contains the text and conclusions, being available for distribution by the Forest Service of the United States Department of Agriculture. In this are sections on the development of power in the United States, power development in the national forests and other public lands, financial statistics of central stations, and concentration in the control of developed power.

Among additional pamphlets published by the Bureau of Foreign and Domestic Commerce (Washington, 1916) are the following:

In the Special Agents Series:

No. 118, *Markets for Machinery and Machine Tools in Peru, Bolivia, and Chile* (pp. 88), by J. A. Massel.

No. 120, *Cotton Goods in the Dutch and East Indies* (pp. 55), by Ralph M. Odell.

No. 122, *Development of an American Linen Industry* (pp. 23), by W. A. Graham Clark.

No. 123, *Cotton Goods in Ceylon* (pp. 39), by Ralph M. Odell.

In the Miscellaneous Series:

No. 38, *Trade of the United States with the World, 1914-1915* (pp. 247).

No. 44, *Trans-Pacific Shipping* (pp. 30).

Special Consular Reports:

No. 75, *Foreign Trade in Buttons* (pp. 184).

Part II of the general monograph on the *Meat Situation in the United States* is more specifically entitled *Live Stock Production in the Eleven Far Western Range States, Based on Reports from Stockmen and County Correspondents*, by W. C. Barnes and J. T. Jardine (Washington, Department of Agriculture, 1916, Report No. 110, pp. 100). This contains maps showing the increase and decrease in cattle and sheep production between 1910 and 1914. There are interesting pictures illustrative of the industry. Part III deals with *Methods and Cost of Growing Beef Cattle in the Corn Belt States*, by J. S. Cotton, M. O. Cooper, W. F. Ward, and S. H. Ray (Report No. 111, pp. 64).

The federal Department of Agriculture has published as a reprint from the Yearbook for 1915 *A Graphic Summary of American Agriculture*, by Middleton Smith, O. E. Baker, and R. G. Hainsworth (pp. 329-403). This is made up of maps illustrating farm land and property, cereal crops and cotton, hay and forage, minor crops, vegetables, fruits and nuts, live-stock and dairying.

Another reprint from the Yearbook of the Department of Agriculture is *The Coöperative Purchase of Farm Supplies* (pp. 73-82), by C. E. Bassett, showing the manner of transacting business by coöperative societies.

There was recently printed for the use of the House Committee on Post Offices and Post Roads, under the direction of Postmaster General Burleson, *Parcel Post Statistics*, a compilation of statistical data relative to ascertaining the cost of administering the parcel post service and the trend and tendencies of the system in its growth and developments (pp. 128).

The Guaranty Trust Company of New York has prepared a *Digest of the United States Shipping Act*, with full text of the law (pp. 42).

Corporations

The Railway Executives Advisory Committee, 61 Broadway, New York, has published a considerable amount of pamphlet material

relating to the present problems affecting railroads. Among the titles to be noted are: *Railway Service:—Is it a National Problem or a Local Issue?* by Frank Trumbull; *Will the Railroads Come Back?* by Lockwood Barr; *The Crux of the Railroad Difficulty*, by Ivy L. Lee; *Under Forty-nine Masters*, by Francis H. Sisson; *A Federal Railroad Board*, by W. W. Cook; *A Right of States*, by Alfred P. Thom; *The Government and the Railroads*, by Otto H. Kahn; *Governmental Regulation of Common Carriers by Railroad*, by G. S. Patterson. In addition to these pamphlets the committee circulates newspaper reprints which will be of interest to students of the railway question.

The Bureau of Railway Economics, Washington, has published, under date of August 1, 1916, a typewritten *List of References on Valuation of Railways*, something over 100 pages in length.

Public utility reports have been received as follows:

Third Annual Report of the Public Service Commission of Massachusetts for 1915, vol. I (pp. clxxxv, 648).

Eighth Annual Report of the Public Service Commission of the Second District, New York, vol. III, *Abstracts of Reports of Corporations* (pp. 325).

Sixth Annual Report of the Board of Public Utility Commissioners for the State of New Jersey for the year 1915 (Trenton, pp. 405).

Labor

THE FEDERAL CHILD LABOR LAW. The Keating-Owen Child Labor bill became law on September 1 by the signature of President Wilson. The law goes into effect September 1, 1917. Its purpose is briefly set forth in Section 1, as follows:

No producer, manufacturer, or dealer shall ship or deliver for shipment in interstate or foreign commerce, any article or commodity the product of any mine or quarry, situated in the United States, in which within thirty days prior to the time of the removal of such product therefrom children under the age of sixteen years have been employed or permitted to work, or any article or commodity the product of any mill, cannery, workshop, factory, or manufacturing establishment, situated in the United States, in which within thirty days prior to the removal of such product therefrom children under the age of fourteen years have been employed or permitted to work, or children between the ages of fourteen years and sixteen years have been employed or permitted to work more than eight hours in any day, or more than six days in any week, or after the hour of seven o'clock postmeridian, or before the hour of six o'clock antemeridian.

An Administrative Board is provided in the law composed of the Attorney General, the Secretary of Commerce, and the Secretary of

Labor, who are empowered to prepare rules and instructions for carrying out the provisions of this act and may from time to time amend these rules within the scope of the law.

The act differs from earlier attempts to legislate against child labor by the federal government in that it does not undertake to restrict a shipper of goods, but rather makes the shipment or delivery for shipment by producer, manufacturer, or dealer an offense. While the bill was pending protests were brought before the National Child Labor Committee which drafted the bill and before the congressional committees considering it, that a dealer not knowing the origin of his goods and shipping them innocently would be subject to punishment although he had no share whatever in the employment of child labor. To secure the innocent dealer against such a hardship the following proviso was added to Section 5:

Provided: That no dealer shall be prosecuted under the provisions of this Act for a shipment, delivery for shipment, or transportation who establishes a guaranty issued by the person by whom the goods shipped or delivered for shipment or transportation were manufactured or produced, resident in the United States, to the effect that such goods were produced or manufactured in a mine or quarry in which within thirty days prior to their removal therefrom no children under the age of sixteen years were employed or permitted to work, or in a mill, cannery, workshop, factory, or manufacturing establishment, in which within thirty days prior to the removal of such goods therefrom no children under the age of fourteen years were employed or permitted to work, nor children between the ages of fourteen years and sixteen years employed or permitted to work more than eight hours in any day or more than six days in any week or after the hour of seven o'clock postmeridian or before the hour of six o'clock antemeridian; and in such event, if the guaranty contains any false statement of a material fact, the guarantor shall be amenable to prosecution and to the fine or imprisonment provided by this section for violation of the provisions of this Act. Said guaranty, to afford the protection above provided, shall contain the name and address of the person giving the same.

The law provides that in any state designated by the board an employment certificate or other document as to the age of the child and not inconsistent with the provisions of the act shall have the same force and effect as the certificate provided in the act itself.

The one feature of this law to which most attention has been called since its enactment is known as the "thirty day clause" which provides that goods may not be shipped in interstate commerce if within thirty days prior to the removal of the products from the establishment children under the proscribed age were employed. This clause has been misunderstood as permitting the shipment of goods in inter-

state commerce thirty days after they were produced by child labor. The distinction is clear. The law provides that, if goods are removed from the place of production within thirty days of the time that the last child is employed in violation of the standards in the law, by this act of removal they become thereafter permanently prohibited from entering into interstate commerce. It has been suggested, however, that in a cannery, where the work is performed during one season and the plant closed, goods might be stored in a warehouse until thirty days after the close of the season whereupon they might be shipped with impunity. This criticism also reveals failure to understand the provisions of the law. Obviously no cannery can afford to stack its goods about the feet of its workers; to be held by the producer they must be removed to a warehouse. The definition of a "warehouse" is within the province of the Administration Board. A warehouse may be a mile from the factory, a foot away, or under the same roof; it may belong to some dealer or to the original producer. This makes no difference. The *removal* of the goods from the place of production to the warehouse marks the first step, which, if followed by shipment in interstate commerce, would complete a violation of the act.

It was estimated that this law will directly affect approximately 150,000 working children, about 50,000 of whom are employed under the age limits provided and the rest employed in excess of eight hours a day in factories and manufacturing establishments. The National Child Labor Committee regards this relief to a large number of working children as of secondary importance, however. The main value of the act is believed to lie in its tendency to elevate and standardize the laws and administration in the various states. One million eight hundred and fifty thousand children are employed in industries entirely beyond the scope of the federal government. These are: wards of the various states; the infant hawkers of news and chewing-gum on our city streets; the truck garden conscripts of Pennsylvania, New Jersey, Ohio, Colorado, and Maryland; the sweating cotton-pickers of Mississippi, Oklahoma, and Texas; the 90,000 domestic servants under 16 years of age who do the menial drudgery in our American homes; and the pallid cash girls in our department stores. If the standards set in the Federal Child Labor law tend within the near future to raise the standards of the various states for employment of children in local industries and tend also to develop efficiency and vigor in state departments of labor and factory inspection the friends of child labor reform may reasonably hope within the next decade to see this system rele-

gated to the museum of antiquity where it belongs with cannibalism and chattel slavery.

OWEN R. LOVEJOY.

National Child Labor Committee.

The federal Bureau of Labor Statistics has published the following bulletins:

No. 189, *Decisions of Courts Affecting Labor: 1915* (Washington, May, 1916, pp. 345).

No. 192, *Proceedings of the American Association of Public Employment Offices* (May, 1916, pp. 177). Reports are made of the meetings held in Chicago, December, 1913; Indianapolis, September, 1914; and Detroit, July, 1915.

No. 194, *Union Scale of Wages and Hours of Labor* (May, 1916, pp. 295).

No. 195, *Unemployment in the United States* (July, 1916, pp. 115). This contains data in regard to unemployment in sixteen cities in the East and Middle West, twelve cities in the Rocky Mountain and Pacific Coast States, and the results of the second survey of unemployment in New York City made by the Bureau of Labor Statistics and the Metropolitan Life Insurance Company in September, 1915.

No. 196, *Proceedings of Employment Managers' Conference*, held in Minneapolis, January, 1916 (pp. 82). This contains papers on "The function of the employment department," by R. C. Clothier, manager of the employment department of Curtis Publishing Company; "Methods of reducing the labor turnover," by Boyd Fisher, of the Detroit Board of Commerce; "Public employment bureaus and their relation to managers of employment in industry," by Hilda Muhlhauser; "The aim and work of employment managers' associations," by Meyer Bloomfield; "The new apprenticeship as a factor in reducing labor turnover," by C. A. Prosser; "Training the immigrant in industry," by W. C. Smith; and "Work of the employment department of the Ford Motor Company," by George Bundy.

The Industrial Commission of Ohio, as a by-product of enforcement of the law regulating private labor agencies, has collected a considerable amount of data in regard to the practice of paying foremen in industrial plants a fee for securing work and also on the practice of payment to foremen in order that workmen may not lose their jobs or may be promoted. This material has been worked up in a bulletin entitled *Job Selling in Industrial Establishments in Ohio*, Department

of Investigation and Statistics Report No. 24 (Columbus, June 26, 1916, pp. 38). It appears that the payment of fees to foremen for furnishing jobs is a well-established custom.

The Executive Committee of the Merchants and Manufacturers of Massachusetts has published a pamphlet on the *Minimum Wage a Failing Experiment. Together with Some Criticism of the Massachusetts Experiment* (Room 53, 89 State St., Boston, 1916, pp. 58). This is avowedly in opposition to the minimum wage law of Massachusetts. "If we are right in our conviction that the minimum wage is a grievous economic error and therefore a menace to capital and labor alike, the sooner it is probed to death, the better for all."

A publication to be noted is the report to the governor of Colorado by the *Committee on Unemployment and Relief* (Denver, 1916, pp. 47).

The Cleveland Chamber of Commerce has published a report of the Committee on Industrial Welfare on *Industrial Profit Sharing and Welfare Work* (pp. 85). Reports are made on the experience of 27 companies in regard to industrial profit sharing and of 23 companies on industrial welfare. A considerable number of these companies are located in Cleveland but reports are made on those elsewhere as well. The matter is presented in condensed form easily apprehended.

The Interborough Rapid Transit Company of New York has published a pamphlet on *The Effort to Tie Up the Street Railroad Systems of New York City* (pp. 36).

The Merchants' Association of New York has issued a report of the Committee on Public Utilities and Law, *For Prevention of Railroad Strikes*, and with it an article on *Railroad Strikes: Their Menace and Their Lesson*, by Henry R. Towne (New York, Sept., 1916, pp. 19).

The Fifth Annual Report on *The Labour Organization in Canada*, for 1915 (Ottawa, pp. 232) contains an interesting section on "The war and trade unionism."

Money, Prices, Credit, and Banking

Further bulletins on prices have been published by the Bureau of Labor Statistics: No. 197, *Retail Prices, 1907 to December, 1915* (pp. 381); No. 200, *Wholesale Prices, 1890 to 1915* (pp. 295).

The Federal Reserve Board has printed its *Circulars and Regulations*, Series of 1916 (Sept., 1916, pp. 25).

Senate Report No. 481, 64th Congress, 1st Session, relates to *Amendments to the Federal Reserve Act*, being the report of the Committee on Banking and Currency, submitted by Senator Owen (May 19, 1916, pp. 15).

In connection with the Federal Farm Loan Act the following pamphlets are of interest:

Bulletin No. 409 of the federal Department of Agriculture, *Factors Affecting Interest Rates and Other Charges on Short-Time Farm Loans* (pp. 12).

Senate Document No. 500, entitled *The Federal Farm Loan Act: With Marginal Notes and Index*, prepared by W. W. Flannagan, secretary of the Joint Committee on Rural Credits (64 Cong., 1 Sess., July 17, 1916, pp. 50).

House Report No. 844 of the committee of conference, submitted by Mr. Glass, on *The Federal Farm Loan Act* (64 Cong., 1 Sess., June 23, 1916, pp. 33).

A *Digest of the Federal Farm Loan Act*, prepared by the Guaranty Trust Company of New York (pp. 16).

The Guaranty Trust Company has also issued a reprint of *The Federal Income Tax Law with a Synopsis of the Features of the Law affecting Individuals and Fiduciaries* (pp. 71) and a *Digest of the Bills of Lading Act* which will be in force January 1, 1917 (pp. 11).

An Analysis of the New Revenue Laws (pp. 23) has been made by the Irving National Bank of New York and a reprint and analysis of the *Federal Bill of Lading Act*.

The Putnam-Hooker Company, cotton commission merchants of Cincinnati, are circulating a pamphlet by the vice-president, Mr. Kenneth R. Hooker, on *Trade Acceptances from a Mercantile Viewpoint*. It is noted that the new method, though not commonly used by cotton goods houses, is increasing in popularity, and the pamphlet encourages further extension of this credit medium.

State banking reports received are:

Annual Report of the Bank Commissioner of Massachusetts: Part I, Savings Banks and Trust Companies; Part II, Coöperative Banks and Credit Unions (pp. lvii, 531; xxxvii, 415). Reports are here made on 47 credit unions.

Report on Savings Banks, Trust Companies, Safe Deposit Com-

panies, and Miscellaneous Corporations of New York (Albany, 1915, pp. 657).

Annual Report of the Commissioner of Banking and Insurance of New Jersey for 1915 (Trenton, pp. 358).

There has been received *Proceedings of the Twenty-second Annual Convention of the Wisconsin Bankers' Association*, held at Madison, August 8-9, 1916 (George D. Bartlett, secretary, 408 Pabst Bldg., Milwaukee, pp. 228); and also the *Proceedings of the Fifth Convention of the New Mexico Bankers' Association*, held at Roswell, October 4-5, 1915 (J. C. Christensen, secretary, Raton, pp. 84).

The Commonwealth Bureau of Census and Statistics of Australia in a recent bulletin on *Prices, Purchasing-Power of Money, Wages, Trade Unions, Unemployment, and General Industrial Conditions, 1914-15*, prepared by G. H. Knibbs (Melbourne, May, 1916, pp. 183), continues its investigation in regard to the purchasing power of money, showing quarterly variations of the purchasing power of money in 30 towns, annual variations in the purchasing power of money in 150 towns, and householders' budget inquiries. The methods pursued by this bureau are of exceptional interest.

Public Finance

THE ATTACK UPON THE COLORADO TAX COMMISSION. Colorado is experiencing at the present time some of the difficulties of centralized administration in a "pure" democracy. This young state has the old New England passion for local self-government and is equipped with the newest improvements for the expression of the popular will, such as the initiative and referendum and the recall. Five years ago, after about forty years (1876-1912) of unhappy experience with an *ex-officio* State Board of Equalization, a strong central tax commission was established, and in November, 1916, the voters decide the fate of an "initiated" bill abolishing that commission.

The opposition to the commission is widespread, but is particularly strong and bitter in Denver and in Weld County, a rich agricultural county in the north central part of the state. Dissatisfaction is expressed with the personnel of the commission and with almost everything it has attempted to do, including its supervision of local assessments, its equalization between the counties, its assessments of the property of corporations and its policy in passing on petitions for increased levies, rebates, refunds, and abatements. No difficulty was experienced in securing nearly 28,000 signatures to the initiative

petition and there are strong indications that the bill destroying the commission will be passed.

One of the two members who have served on the commission since its establishment is Dr. John B. Phillips, formerly professor of economics at the University of Colorado. The other is Celsus P. Link, who had served for nine years as county assessor and for seven years as deputy assessor in one of the mountain counties. The third member of the commission for the first three years was J. Frank Adams, a Denver lawyer. He was succeeded, in 1915, by Edward B. Morgan, also a lawyer, who had been a high official in the Colorado Taxpayers' Protective League.

An examination of the work of the commissioners reveals a very creditable record, especially in view of the fact that they have had exceedingly meager financial resources and have been given unreasonably heavy duties to perform. Although they have not fulfilled in every instance the technical requirements of the law, particularly those prescribing local visits, they have maintained a reasonable supervision over local assessments. It is in connection with the equalization of assessments that most of the friction has developed. It is not surprising that this should be so for the Colorado commission has grappled with this problem with a boldness and courage that is both rare and refreshing. Nothing was attempted in this direction in 1912, but in 1913 the county officials were directed to raise their assessments from the one-third basis which had been customary in the state to full cash value. The commission was almost without funds for investigating purposes, but the public utilities of the state, which were eager to see the local valuations raised to the same standard of full cash value which they felt had been applied to them, volunteered to assist the commission in gathering data to aid in the equalization. They organized a large force of field workers and retained the former secretary of the commission to conduct the investigation. The commission used its slender resources in checking and supplementing these data. Thus equipped, the abstracts of the local assessors were examined and a radical equalization was made. Fifty-eight of the sixty-three counties received increases, some of the assessments being almost trebled. The assessor of Denver County had even before this proved himself a thorn in the side of the commission; first, by objecting to certain valuations placed by the commission upon Denver local utilities in 1912 and in the same year by attempting an independent equalization of his own by reducing his assessment 10 per cent several months after he had filed his abstract. He now refused to make the 40 per cent in-

crease in his assessments ordered by the tax commission and resort was made to the courts where the commission was sustained. In 1914 the commission increased only twenty-four counties; but Denver County, having submitted an abstract which fell far below the figure set the previous year, was one of the twenty-four, receiving a 34 per cent increase. In 1915 the Denver abstract was one of twelve to be increased, this time about 21 per cent. The assessor once more became involved in court action and again suffered defeat. In connection with this litigation the city officials give credence to ugly but improbable rumors, which it has been found impossible to confirm, concerning forces brought to bear upon the supreme court to influence their decision. Convinced that the city is discriminated against in favor of the "outside" counties and despairing of securing "justice," the city officials have decreed the destruction of the commission.

The Weld County opposition centers also about the county assessor. He charges not only that the property in his county is over-assessed but that the property of the large corporations is under-assessed. His opposition is due in part to a misapprehension as to methods actually used by the commission in assessing corporations and partly to a peculiar theory of value which he applies in assessing land. The other opposition to the commission is relatively insignificant.

The merits of the question are obscured by the presence of much prejudice and misinformation. There is a bitter intersectional dispute between Denver and the remainder of the state. There is a deep-seated antipathy for the corporations, from which the people of Colorado have come to expect nothing good. Personal feelings have been outraged in the friction and litigation which has marked the entire life of the commission and, perhaps most important of all, some of the local officials have appreciated only too well the political popularity which would attach itself to the champions of the people in a fight against the commission. The question even became an issue in the primary campaign, one of the Republican candidates for governor having pledged himself to the destruction of the commission. Finally, great misapprehension exists as to the actual effects of the tax commission's equalization activities. The impression is general in Denver, for example, that the commission has increased the city's tax burden enormously. The fact is that, had the commission accepted the local assessor's figures as entirely satisfactory, there would have been no perceptible decrease in the city's taxes. In no year did the increase amount, in taxes, to as much as \$100,000 in a total tax burden of from six to seven million dollars. But, as one city employee aptly

remarked, "it is not how big it actually is, but how big you can make it look."

At the instance of the Survey Committee of State Affairs, an official body established by the legislature, an investigation was made of the work of the commission. The conclusions drawn from this investigation were that the commission had done nothing to merit destruction; that, taking into account the handicaps under which it labored, it had made a record which deserved confidence and increased support.

Tax commissions now exist in thirty-five states. They seem to have been abolished in only three, Idaho, Delaware, and Montana. If Colorado adds itself to these three, its action must not be taken as an indication of a serious failure of this type of organization. It is perhaps evident from the above analysis that other elements than the mere record of the commission are playing important roles in the situation.

ROBERT MURRAY HAIG.

Columbia University.

TARIFF SYSTEMS OF SOUTH AMERICAN COUNTRIES, by Frank D. Rutter, is a recent publication of the Bureau of Foreign and Domestic Commerce, of which the author is Assistant Chief (Tariff Series No. 34, pp. 308). It is, in large part, a first-hand investigation; for the bulk of the material was collected by the author in 1912 while visiting several of the South American republics in the capacity of a commercial agent of the Department of Commerce. This was supplemented by special reports from diplomatic and consular officers, and the whole has been carefully sifted and systematized.

The purpose of the report is to furnish information which will enable interested parties to understand the tariffs of the countries here considered, and their various methods of customs procedure. No attempt has been made to give all the details of the various tariffs and other duties levied. Most of these are accessible in this country, are subject, in certain particulars, to more or less frequent changes, and soon become antedated. Consequently, the author very wisely has chosen to emphasize the more permanent features of the tariff systems and the underlying principles upon which they are based. From the more practical standpoint, however, there is given a general idea of the sum total of the charges that must be expected when entering goods into South American countries. Moreover, the actual procedure involved is described, with emphasis upon the penalties to which one is liable when there are violations of the law.

As the author points out, a discussion of the tariffs and customs

regulations of South American countries involves a consideration of three main topics—the character of the tariff systems, customs duties and charges, and customs procedure. Accordingly, the individual countries are treated successively under these three headings. And, by way of summary, there is given an analysis and comparison of the different systems of the various countries individually considered. It may be of interest to note that the tariffs are largely revenue rather than protective measures. If there is taken into consideration governmental revenues of all kinds both local and national, import duties constitute in South America a relatively more important means of gaining revenue than in Europe or the United States. In general, it may be said that there is little tariff preference shown in importations. The most conspicuous exception is the practice of Brazil in reducing the duty on a limited number of articles originating in the United States.

Four kinds of tariffs are to be found in South America. The valuation (*ad valorem*) system is found in Argentina, Bolivia, Paraguay, and Uruguay. The tariffs are assessed, however, not on the actual value of the shipments but upon an official valuation. Of course this does not apply to articles not included in the official valuation schedule. Specific tariffs, somewhat similar to those in Europe, are in force in Peru, Colombia, and Chile. They represent a comparatively recent development in South America, the first having been adopted by Peru in 1910. The class-rate tariff is a modified form of the specific tariff and is used in Ecuador and Venezuela. The Brazilian tariff system is classed by itself and comes in for special consideration. It consists largely of specific rates of duty, but each rate is accompanied by a percentage representing the *ad valorem* equivalent of the specific duty. "From these two factors, the official valuation of each article must be calculated, and that valuation serves as the basis for assessing the additional duty of two per cent *ad valorem* for port improvements and the warehouse charge."

On the whole, Mr. Rutter has made a valuable contribution to the increasing literature bearing upon trade development with the republics of South America; and, in view of the present-day interest in the promotion of our commerce with the Latin-American countries, this is a timely volume which should appeal to students of commerce, exporters, and business men in general.

AVARD L. BISHOP.

Yale University.

Insurance and Pensions

Relating to workmen's compensation are the following:

Schedule Rating for Workmen's Compensation Risks, by L. S. Senior, an address delivered before the Insurance Society of New York, February 29, 1916 (pp. 14).

First Annual Report of the State Industrial Accident Commission of Maryland (Baltimore, 1915, pp. 77).

Michigan Workmen's Compensation Cases Including Rules of Procedure, Forms, and Blanks, published by the Industrial Accident Board (Lansing, July, 1916, pp. 538).

Workmen's Compensation Laws, from the report of the Judicial Council of the American Medical Association, being published as Social Insurance Series Pamphlet No. 1 (535 North Dearborn St., Chicago, pp. 71).

The American Medical Association publishes as Pamphlet No. 2 in this series *Social Insurance* (pp. 104); as No. 3, *Health Insurance in Relation to the Public Dispensary*, by Dr. I. M. Rubinow (pp. 11); and as No. 4, *Health Insurance in Relation to Public Health* (pp. 12), also by Dr. Rubinow.

A bulletin of the Industrial Commission of Ohio contains a *Report on Employers Carrying Self-Insurance as Provided under Section 22 of the Workmen's Compensation Act* (Columbus, April 26, 1916, pp. 7).

PERIODICALS

The REVIEW is indebted to Robert F. Foerster for abstracts of articles in Italian periodicals, and to R. S. Saby for abstracts of articles in Danish and Swedish periodicals.

Economic History, United States

(Abstracts by E. L. Bogart)

ANDREWS, C. L. *Alaska under the Russians—Baranof the builder*. Wash. Hist. Quart., July, 1916. Pp. 15.

Describes the work of Baranof during a period of twenty-eight years, 1791-1818.

BABCOCK, H. L. *The beaver as a factor in the development of New England*. Americana, Apr., 1916.

BELL, H. C. *British commercial policy in the West Indies, 1783-1793*. Eng. Hist. Rev., July, 1916. Pp. 12.

Describes the efforts made by the British government to enforce the navigation laws after the loss of the continental colonies.

BRADLEE, F. B. C. *The Eastern Railroad*. Essex Inst. Hist. Coll., July, 1916. Pp. 31.

An account of early railroading in eastern New England. The Eastern Railroad was between Boston and Salem.

CAMPBELL, J. V. *The Sinclair party*. Wash. Hist. Quart., July, 1916. Pp. 15.

An emigration overland along the old Hudson Bay Company route from Manitoba to the Spokane country in 1854.

CLARK, V. S. *The influence of manufacturers upon political sentiment in the United States from 1820 to 1860*. Am. Hist. Rev., Oct., 1916. Pp. 7.

CROSFIELD, J. D. *Richard Smith and his journal, 1817-1824*. Journ. Friends Hist. Soc., Aug., 1916. Pp. 10.

Experiences of a Quaker merchant in the Ohio country. Second instalment.

CUNNINGHAM, C. H. *Origin of the Friar Lands question in the Philippines*. Am. Pol. Sci. Rev., Aug., 1916. Pp. 16.

Traces the history of the church lands from 1687.

FAUST, A. B. *Swiss emigration to the American colonies in the eighteenth century*. Am. Hist. Rev., Oct., 1916. Pp. 24.

An account of the difficulties interposed by the Swiss governments. Many documents are reprinted in an appendix.

GALLAHER, R. A. *Indian agents in Iowa. I. Agents among the Saco and Foxes*. Iowa Journ. Hist. & Pol., July, 1916. Pp. 47.

GIBBS, L. M. *Growth and development of Sioux Falls, South Dakota*. Northw. Banker, June, 1916.

GOLDER, F. A. *Mining in Alaska before 1867*. Wash. Hist. Quart., July, 1916. Attempts at coal mining between 1850 and 1860.

- GROVER, F. R. *Indian treaties affecting lands in the present state of Illinois.* Journ. Ill. State Hist. Soc., Oct., 1916. Pp. 40.
- GUERNSEY, S. J. *Notes on exploration of Martha's Vineyard.* Am. Anthropologist, Mar., 1916.
- HASKINS, MRS. E. B. *Fanny Saltar's reminiscences of colonial days in Philadelphia.* Pa. Mag. Hist. & Biog., Apr., 1916.
- HIBBARD, B. H. *The settlement of public lands in the United States.* Intern. Rev. Agr. Econ., vol. 7, no. 1, 1916.
- HINKE, W. J., translator and editor. *Report of the journey of Francis Louis Michel from Berne, Switzerland, to Virginia, October 2, 1701-December 1, 1702.* Va. Mag. of Hist., July, 1916. Pp. 29.
Concluding instalment.
- LENHART, J. *The Capuchins in Acadia and northern Maine, 1632-1655.* Rec. of Am. Cath. Hist. Soc., Sept., 1916. Pp. 39.
Describes economic as well as political and religious activities.
- LIPPINCOTT, I. *A century and a half of fur trade at St. Louis.* Wash. Univ. Studies, vol. III, pt. II, no. 2, Apr., 1916. Pp. 37.
Traces the history of the fur trade from 1762. The year 1914 showed the largest amount of furs ever handled.
- PAINTER, R. E. *Tavern amusements in the eighteenth century.* Americana, Jan., 1916.
- PAXSON, F. L. *The cow country.* Am. Hist. Rev., Oct., 1916. Pp. 19.
The growth and decline of cattle raising on the western range between 1866 and 1887.
- QUISENBERRY, A. C. *The census of Woodford county, Ky., 1800.* Register of Ky. State Hist. Soc., May, 1916.
- SANFORD, A. H. *Mutual opinions of North and South, 1851-1854.* Hist. Teachers' Mag., May, 1916.
- SCHLICHER, J. J. *Terre Haute in 1850.* Ind. Mag. of Hist., Sept., 1916. Pp. 25.
A gossip narrative.
- SELIGMAN, E. R. A. *Economic influence of the war on the United States.* Econ. Journ., June, 1916. Pp. 16.
Discusses the prosperity due to the war, certain disadvantages which have accompanied this prosperity, and the economic outlook.
- SFERLIN, O. B. *The Indian of the Northwest as revealed by the earliest journals.* Quart. Oregon Hist. Soc., Apr., 1916.
- STEVENS, W. E. *The organization of the British fur trade, 1760-1800.* Miss. Valley Hist. Rev., Sept., 1916. Pp. 31.
A careful account of the fur trade in Canada and the western part of the thirteen colonies.
- VAN DER ZEE, J. *Episodes in the early history of the Des Moines Valley.* Iowa Journ. Hist. & Pol., July, 1916. Pp. 37.
Contains material about the early fur trade.

WILKINSON, A. E. *The author of the Texas homestead exemption law*. Southw. Hist. Quart., July, 1916. Pp. 6.

The principle of homestead exemption originated with the Texas law of 1839, whose author was Louis P. Cooke.

WRIGHT, I. A. *The commencement of the cane sugar industry in America, 1519-1538 (1563)*. Am. Hist. Rev., July, 1916. Pp. 26.

Spanish documents from the archives in Seville illustrating the origin and development of the sugar industry in the Spanish West Indies.

A Hudson's Bay Company contract. Quart. Oregon Hist. Soc., Apr., 1916.

A typical contract of the year 1850.

Letters of Benjamin Hawkins, 1796-1806. Coll. of the Ga. Hist. Soc., vol. IX, 1916.

Valuable contribution to source materials for study of Indian affairs. Hawkins was an Indian agent from 1796 to 1816.

Letters of James Rumsey, inventor of the steamboat. William & Mary Quart., July, 1916. Pp. 14.

Letters to Capt. Charles Morrow. Second and concluding instalment.

The pioneers of Jefferson county. Ind. Mag. of Hist., Sept., 1916. Pp. 31.

Reminiscences by five pioneers covering the first half of the nineteenth century.

Una Brown's journal. Md. Hist. Mag., Sept., 1916. Pp. 19.

A continuation of the journal of a land surveyor in Virginia and Ohio about 1796. Third instalment.

Economic History, Foreign

(Abstracts by Clive Day)

ABRAM, A. *Women traders in medieval London*. Econ. Journ., June, 1916. Pp. 10.

A substantial contribution, emphasizing the importance of women's work.

ALZAMORA, I. *The economic situation and possibilities of Peru*. Econ. Wld., Aug. 12, 1916. Pp. 3.

BACHI, R. *L'Italia economica nel 1915*. Rif. Soc., May-July, 1916 (supplement). Pp. 317.

This admirable annual economic survey of Italian economic conditions is of especial interest for the war year 1915.

BELL, H. C. *British commercial policy in the West Indies, 1783-1793*. Eng. Hist. Rev., July, 1916. Pp. 12.

A valuable contribution on an important topic, based largely on manuscript sources.

CRIMI, G. N. *L'integrazione industriale*. Giorn. d. Econ., June, 1916. Pp. 25.

Industrial integration is a natural and spontaneous evolution.

CURATO, G. *I contadini di Troja (Foggia) seconda l'inchiesta parlamentare*. Giorn. d. Econ., July, 1916. Pp. 19.

Information scattered through the voluminous government report upon the conditions of the peasants is here assembled into a connected statement.

FISHER, I. *Some impending national problems*. Journ. Pol. Econ., July, 1916. Pp. 17.

An anniversary address, touching on the problems of war, of conservation, and of the unequal distribution of wealth.

GAY, E. F. *Russia—economic doubles—America*. Russia, May, 1916. Pp. 2.

GILCHRIST, R. N. *The economic position of education in India*. Bengal Econ. Journ., Apr., 1916. Pp. 10.

HAMILTON, C. J. *The economic development of Japan*. Bengal Econ. Journ., Apr., 1916. Pp. 16.

An analysis of the causes of recent progress in Japan, with incidental comparisons with British India.

VAN DER KEMP, P. H. *Over de kustvaartwetgeving in Nederl. Indie van 1825 tot 1912*. De Economist, Sept., 1916. Pp. 17.

Navigation policy with respect to coasting trade.

LOUGH, S. M. *Trade and industry in Ireland in the sixteenth century*. Journ. Pol. Econ., July, 1916. Pp. 17.

A survey based on original printed material.

MATHOREZ, J. *La pénétration des Allemands en France sous l'ancien régime*. Rev. des Etudes Hist., Jan., Apr., 1916. Pp. 30, 35.

Includes industrial and financial aspects.

NICHOLSON, J. S. *Central Europe after the war*. Econ. Journ., June, 1916. Pp. 10.

A thoughtful review of Naumann's *Mitteleuropa*.

OZEROV, I. *The economic situation in Russia*. Russian Rev., July-Aug., 1916.

PANTALEONI, M. *I fenomeni economici della guerra*. Giorn. d. Econ., May, June, 1916. Pp. 20, 22.

PAYEN, E. *Le Brésil*. L'Econ. Franç., July 22, 1916. Pp. 2.

PAYEN, E. *Roumania and its resources*. Econ. Wld., Sept., 2, 1916. Pp. 4.

PISANI, L. *Phénomènes économiques italiens*. Journ. des Econ., July, 1916.

Covers the sugar industry, wine export, mortality, state railroads.

RAFFALOVICH, A. *La situation économique de la Russie en 1915*. L'Econ. Franç., July 8, 1916. Pp. 2.

SACO, J. A. *De las mercancías que servían para la trata negrera*. Rev. Bimestre Cubana, May-June, 1916. Pp. 9.

Records of purchases of African negroes for slavery, chiefly in the eighteenth century.

SANDERS, T. H. *Japan's financial opportunities*. Econ. Journ., June, 1916.

SCHMOLLER, G. *Fünfhundert Jahre Hohenzollern-Herrschaft*. Jahrb. f. Gesetzgebung, 40, 1, 1916. Pp. 20.

An eloquent tribute, including economic policy and results.

SIEGFRIED, F. P. *Through South America's Southland*. Rec. of Am. Cath. Hist. Soc., Sept., 1916. Pp. 8.

A review of Dr. J. A. Zahn's book, "Following the Conquistadores."

SIMEKHOVITCH, V. G. *Rome's fall reconsidered*. Pol. Sci. Quart., June, 1916. Pp. 33.

Attributes fall of Rome to progressive exhaustion of the soil.

UNGER, W. S. *De hollandsche graanhandel en graanhandel-politiek in de middeleeuwen*. De Economist, Apr., May, June, 1916. Pp. 26, 49, 46.

Substantial contribution, including documentary and statistical material.

WRIGLEY, G. M. *Salta, an early commercial center of Argentina*. Geog. Rev., Aug., 1916. Pp. 17.

Historical-geographical account with maps.

The economic future of Russia. Moody's Mag., Sept., 1916. Pp. 4.

Der Krieg und die Wellenbewegungen des Wirtschaftslebens. IV. *Der Preisfall 1875-96*. Der Schweizer Volkswirt, May-June, 1916. Pp. 4.

Agricultural Economics

(Abstracts by John Lee Coulter)

ABLES, E. *Maize, the greatest American food product*. Bull. Pan. Am. Union, July, 1916. Pp. 11.

Popular, but carefully accurate story of the leading grain crop of the world, historical, statistical and descriptive, with illustrations.

AGNELLI, A. *L'economia agricola e il prestito di guerra*. Rif. Soc., Feb.-Mar., 1916. Pp. 18.

A study of the investment position of the agricultural classes in Italy expressing the hope that the new war loans will stimulate in these classes a greater interest in public affairs.

BAKER, R. S. *Agricultural revival in Massachusetts*. Wld. Wk., July, 1916. Pp. 3.

An account, in popular form, of the development of the three grand divisions of educational work in agriculture (the experiment station, college of agriculture, and extension service) in the United States, with Massachusetts as the state used to illustrate the movement and present status.

BRAND, C. J. *The determination of disputes under the United States Cotton Futures act*. Bull. U. S. Dept. Agri., Apr., 1916. Pp. 44.

A service and regulatory announcement put out by the Office of Markets, which under the law is charged with the administration of the act. Gives record of 1,003 disputes.

BRIDGES, G. G. *The system of land registration in New Zealand.* Mo. Bull. Econ. & Soc. Intell., Apr., 1916. Pp. 20.

An account of the land transfer system in New Zealand, which is in the main the well-known Torrens system first introduced in South Australia in 1858 and adopted in New Zealand in 1870.

BRODIE, D. A. *The influence of relative area in intertilled and other classes of crops or crop yield.* Circular U. S. Dept. Agri., No. 57, March, 1916. Pp. 9.

Probably the first study of this important problem in agricultural economics in which statistical results on a large number of farms are presented with some definite results.

BUTTERFIELD, K. L. *The relationship of New England agriculture to manufacturing.* Nat. Assoc. Cotton Mfrs., Apr., 1916. Pp. 10.

A careful examination of the importance of the revival and development of agriculture in New England, not to furnish any large part of the raw material needed by the factories but to furnish food for the laborers.

CAMP, W. R. *The movement to organize credit in North Carolina.* Intern. Rev. Agri. Econ., May, 1916. Pp. 4.

An account of the credit union law of North Carolina with details of problems met and progress made.

CHUBBUCK, M. E. *Chemung County, an account of its agriculture and of its farm bureau.* N. Y. Farm Bureau Circular 7, 1915. Pp. 42.

A typical county survey with basic facts analyzed and carefully prepared conclusions for sound economic farm improvement.

FLOHR, L. B. *Suggestions for parcel post marketing.* U. S. Dept. Agri., Farmers' Bull. 703, 1916. Pp. 20.

Illustrated popular treatise for producers and consumers on uses of parcel post for bringing farm products to consumers at the best time, in the best condition, with fair prices to both parties.

FRASCHETTI, A. *La politica commerciale italiana e i suoi effetti sull'economia nazionale.* Giorn. d. Econ., Apr., 1916. Pp. 34.

Includes an analysis of Italian agriculture and industry in the first fifteen years of protection.

GOEBEL, P. W. *Farmers' need for productive credits amply cared for by present facilities.* Econ. Wld., Apr. 8, 1916. Pp. 4.

A banker's view that there is no such special thing as rural credits and that no national legislation is necessary with statement that he had not read bill before Congress.

GROSS, H. H. *Agricultural efficiency a foundation for national defense.* Sci. Mo., Apr., 1916. Pp. 4.

A very general statement of the problem covering importance of efficiency in times of peace as well as times of war.

JENKINS, J. E. *Land settlement in Australia.* Intern. Rev. Agri. Econ., July, 1916. Pp. 7.

Review of land settlement program for state of Victoria; covers laws and administrative machinery in connection with sale of otherwise unoccupied lands. System of state advances to farmers and irrigation farms briefly treated.

JOHNSON, O. M. and DADSMAN, A. J. *An agricultural survey of Brooke County.* W. Va. Expt. Sta. Bull. 153, 1915. Pp. 32.

Report on study of some 200 farms visited and carefully studied. One of series prepared in coöperation with the Office of Farm Management of the United States Department of Agriculture. Illustrated.

HERRICK, M. T. and INGALLS, R. *How to finance the farmer; private enterprise, not state aid.* Cleveland, Ohio, Com. Rural Credits and Coöp., 1915. Pp. 58.

Descriptive account of mortgage systems now in use in various countries with plan of farm mortgage institutions for American farmers. Advocates private enterprise and opposed to government aid.

HIBBARD, B. H. and HOBSON, A. *Marketing farm produce by parcel post and express.* Am. Econ. Rev., Sept., 1916. Pp. 20.

NOURSE, E. G. *What is agricultural economics?* Journ. Pol. Econ., Apr., 1916. Pp. 18.

Careful analysis, with historical background, of what agricultural economics should be rather than what it is as taught today, with conclusion that it is so important that at least one solid course should be given in every university, whether otherwise interested in agriculture or not.

ORWIN, C. R. *Reports of home production of food.* Econ. Journ., Mar., 1916. Pp. 8.

Review of reports made by special committees selected to study the food crisis in England, Ireland, Scotland, and Wales, in view of the war, with discussion of recommendations.

PUTNAM, G. E. *Land tenure reform and democracy.* Pol. Sci. Quart., Mar., 1916. Pp. 12.

Brief review and growth of tenant system in the United States with reference to some means of stemming the tide such as land nationalization, taxation, direct government aid, state or national, and rural credit systems.

REED, W. G. and TOLLEY, H. R. *Weather as a business risk in farming.* Geog. Rev., July, 1916. Pp. 5.

A study of relation of weather to profits in agriculture illustrated with maps and statistical data with reference to last spring frost at a given point.

SINGH, ST. N. *The agricultural progress of Japan.* Wealth of India, Mar., 1916. Pp. 3.

Agricultural development since the Japanese awakened, including review of laws, development of education in agriculture, extension service, credit facilities, etc. Accurate statistics are presented.

SMITH, J. R. *Farming Appalachia*. Am. Rev. Rev., Mar., 1916.

A comparative study, with illustrations, of the farmers of the Appalachian Mountains and those of the Corsican Mountains with an attempt to show the great possibilities of improvement in our own country through a correct system of agricultural education.

SMITH, G. C. *Farm mortgage credit in New Hampshire*. N. H. Col. Arts & Sci. Research Bull. 2, 1916. Pp. 16.

A careful statistical and analytical survey of farm mortgage credit in New Hampshire with some valuable general conclusions. Illustrated.

THOMPSON, A. D. *Cost of producing milk on 174 farms in Delaware County*. N. Y. Cornell Sta. Bull. 364, 1915. Pp. 70.

A study in cost accounting with milk production in the hill sections of New York as the basis. Product of some 5,000 cows for two years involved. Of special interest in view of nation-wide study of this problem by the United States Department of Agriculture just begun.

THOMPSON, J. G. *The nature of demand for agricultural products and some important consequences*. Journ. Pol. Econ., Feb., 1916. Pp. 22.

A very careful examination of the theory of influence of demand on production and price as well as consumption of farm products with numerous concrete illustrations and both theoretical and practical results.

VOGT, P. L. *The farmer's labor income*. Am. Econ. Rev., Dec., 1916. Pp. 15.

VROOMAN, C. *Grain farming in the corn belt with live-stock as a side line*. U. S. Dept. Agri., Farmers' Bull. 704, 1916. Pp. 48.

Popular bulletin for the average farm of the North Central States showing place of scientific farming and place of "horse sense" in order to succeed. A carefully worked out system of farming with consideration of crops, live-stock, finances, markets, etc., is presented.

WELD, L. D. H. *Coöperation in Minnesota*. Mo. Bull. Econ. & Soc. Intell., Feb., Mar., 1916. Pp. 15, 7.

A comprehensive review of coöperation among farmers in Minnesota. The February number covers general conditions, a summary of statistics, coöperative creameries, and farmers' elevators; the March number, live-stock shipping associations, coöperative stores, telephone companies and insurance companies.

WOODBURY, R. M. *Statistics of the food supply of Germany*. Quart. Pub. Am. Stat. Assoc., Mar., 1916. Pp. 16.

Comprehensive and authentic report bringing together statistics on this subject with copious references covering exports, imports, home production, and consumption.

The agriculture of Argentina. Americas, Mar., 1916. Pp. 6.

Highly illustrated story of large-scale, extensive system of farming contrasted with the intensive farming of Denmark.

Agricultural labour and wages. Mo. Bull. Soc. & Econ. Intell., Feb., Mar., Apr., 1916. Pp. 12, 18, 4.

Deals with the entire labor population of farms in Sweden, the more important topics being terms of employment of agricultural laborers by district and by type of farm work, rules which regulate the engagement of farm workers, overtime in farm work, piece work, and the bonus system; wages in kind; grants of land to hired laborers; age, sex, condition, number in family and duration of work, kind and rate of wages; casual laborers, their number and distribution, etc.

Closer settlement in New Zealand. Intern. Rev. Agri. Econ., June, 1916. Pp. 3.

Brief review of government land policy in Dominion of New Zealand, meaning of closer settlement, early policy of disposing of crown lands; second policy adopted 1892, final policy of 1909, with statistics.

The consolidation of farm-lands. Intern. Rev. Agri. Econ., May, 1916. Pp. 13.

Historical and descriptive study of laws and administration looking toward reestablishment of boundaries of farms and dividing of large tracts into smaller farms in France. Statistical tables of results are given and copy of by-laws of a typical local association of farmers.

Land settlement in Queensland. Mo. Bull. Econ. & Soc. Intell., Apr., 1916.

An excellent account of legislation in Queensland providing for sale and lease of crown lands as well as homesteads. Detail of administration of the various acts, with statistics, are presented.

Proposal for increasing the home production of food. Mo. Bull. Soc. & Econ. Intell., Feb., Mar., 1916. Pp. 11, 8.

A thorough review of the reports (including minority) made by special committees to study the food crisis in Great Britain and Ireland on account of the war, with conclusions.

Quinine, a South American gift to humanity. Bull. Pan. Am. Union, Jan., 1916. Pp. 17.

Thoroughly scientific article clothed in popular language, well illustrated, presents discovery, developments, operation and uses of product of quinine farming.

Statistical notes on the yield, consumption, and prices of cereals with rates of ocean freight. Intern. Inst. Agri. Bull. Agri. Stat. (Supplement), Mar., 1916. Pp. 76.

Statistics of world production, areas sown and quantities used for seed, imports and exports, quantities available for domestic requirements, prices and rates of ocean freight.

Commerce

(Abstracts by Melvin T. Copeland)

BELLET, D. *L'industrie automobile aux Etats-Unis.* L'Econ. Franç., Aug. 19, 1916. Pp. 2.

Rapid increase in production and exportation.

CHEBINGTON, P. T. *The American wool industry.* Bull. Nat. Assoc. Wool Mfrs., July, 1916. Pp. 11.

Problems which now confront wool grower and wool manufacturer.

COLAJANNI, P. *L'influenza dello stato di guerra sul costo di produzione dello zolfo in Sicilia e i provvedimenti del governo.* Rif. Soc., May-July, 1916. Pp. 14.

The Sicilian sulphur industry has almost collapsed during the war.

GILCHRIST, C. A. *Is a balance of trade in favor of exports favorable?* Sci. Mo., July, 1916. Pp. 11.

So-called "favorable" balance not a balance to the credit of the country.

HAMMOND, J. H. *Where will European competition find us weakest?* System, Sept., 1916. Pp. 8.

Better vocational education needed.

O'FARRELL, H. H. *British and German export trade before the war.* Econ. Journ., June, 1916.

Statistical comparisons for 1895-1913, indicating that German competition with English export trade has been over-estimated.

FRASCHETTI, A. *La politica commerciale italiana e i suoi effetti sull'economia nazionale.* Giorn. d. Econ., July, 1916. Pp. 30.

PAWLOWSKI, A. *Les ports maritimes de France en 1914 et 1915.* Journ. des Econ., Aug., 1916. Pp. 13.

Increased facilities; methods of relieving congestion.

PAYEN, E. *Le platine: sa production, son commerce et ses emplois.* L'Econ. Franç., Aug. 12, 1916. Pp. 2.

Production and prices; comments on uses.

RAFFALOVICH, A. *Le commerce extérieur de la Russie.* L'Econ. Franç., Sept. 2, 1916. Pp. 2.

Effect of war on Russian export trade; opportunities for expansion when war ends.

ROULAND, E. *La législation sur les marques de fabrique.* L'Econ. Franç., Sept. 2, 1916. Pp. 2.

Brief review of trade-mark legislation in France; proposed changes.

SELWYN-BROWN, A. *The shipping boom.* Moody's Mag., July, 1916. Pp. 4.

Improbable that American shipping will prosper after the war ends.

STOCKS, M. *The meat problem in Germany.* Econ. Journ., June, 1916. Pp. 6.

Ridicules German regulation of meat traffic.

WHITNEY, N. R. *Power of unity in export trade.* Annalist, Aug. 7, 1916. Pp. 2.

Suggests plan for organization of selling agencies or export associations by competing American exporters.

A coming industry. Nation's Business, July, 1916. Pp. 2.

Optimistic regarding development of dye-stuff industry in United States.

Frozen meat in France and the world's frozen meat trade in 1915. Econ. Wld., Sept. 23, 1916. Pp. 3.

Translation of article from *L'Economiste Française* noted previously.

Latin American exports: an opportunity. Bull. Pan Am. Union, Aug., 1916.

Advantages to United States of importing raw materials from Latin America.

The need of coopération in developing foreign trade. Econ. Wld., Aug. 19, 1916. Pp. 5.

Report of committee of National Foreign Trade Council urgently supporting bill to permit combinations in foreign trade.

Paying unnecessary tribute to foreign business combinations. Americas, June, 1916. Pp. 5.

Favors bill permitting combinations for export trade.

The supply and the price of milk in New York City. Econ. Wld., Sept. 9, 1916. Pp. 4.

Milk controversy in New York and other cities will become more acute in the future; by-product supply no longer adequate.

Trade with the world. Nation's Business, July, 1916. Pp. 2.

Comparative statistical summary.

Webb foreign trade bill heartily endorsed. Greater N. Y., July 24, 1916. Pp. 4.

Resolution adopted by Merchants Association, New York; reasons for endorsement; amendments proposed.

Le commerce extérieur de la France pendant le premier semestre de 1916 et la balance des paiements à l'étranger. L'Econ. Franç., Aug. 19, 1916. Pp. 2.

Comments on statistics for exports and imports and balance of trade.

Railways

(Abstracts by Julius H. Parmelee)

ITCHISON, C. B. *The issues in the federal railway appraisal.* Utilities Mag., Sept., 1916. Pp. 11.

ALLIX, G. *Dangereuse tendance.* Journ. des Trans., Sept. 23, 1916. Pp. 4.

Deprecates the federation movement of French railway employees, as an indication of the coming of the general strike.

ALLIX, G. *Les chemins de fer Italiens depuis la guerre.* Journ. des Trans., Sept. 9, 1916. Pp. 5.

ALLIX, G. *Les résultats de 1915. Le Métropolitain de Paris. Les résultats de l'exploitation du réseau d'Orleans en 1915. Les résultats de 1915. Le chemin de fer Nord-Sud de Paris.* Journ. des Trans., June 17, July 1, July 15, 1916. Pp. 4, 4, 3.

BATES, O. *What is the significance of the eight hour working day?* Ry. Rev., Sept. 2, 9, 16, 23, 1916. Pp. 1, 3, 2, 2.

BAUER, J. *The allowance for working capital in a rate case.* Pol. Sci. Quart., Sept., 1916. Pp. 17.

BELL, W. H. S. *Railways and harbours regulation, control and management act, 1916.* S. African Railways & Harbours Mag., Sept., 1916. Pp. 8.

BELLET, D. *Les chemins de fer et la guerre*. I. Journ. des Econ., Sept., 1916. Pp. 14.

The first of a series; this number is general and historical.

BENTON, J. E. *Commission valuation for rate purposes*. Elec. Ry. Journ., Oct. 14, 1916. Pp. 5.

Origin and development of the fair-value rule.

BUSH, B. F. *The eight-hour law*. Pro. St. Louis Ry. Club, Sept. 28, 1916. Pp. 7.

CHAPPLE, J. M. *A train control that works*. Nat. Mag., July, 1916. Pp. 7. Description of the Miller patent.

COLEMAN, F. G. *Electrification for heavy freight traffic in England*. Ry. Rev., Aug. 12, 1916. Pp. 5.

On the North Eastern Railway.

CORMIE, J. A. *The Hudson Bay ra'road*. Queen's Quart., July-Aug.-Sept., 1916. Pp. 8.

Approaching completion of the new Canadian government railway.

DONOHUE, T. F. *The Missouri Pacific: can it survive?* Moody's Mag., Oct., 1916. Pp. 5.

The author's answer is affirmative. A discussion of the Missouri Pacific reorganization plan.

DUNN, S. O. *Government regulation of railway operation*. Pro. Western Ry. Club, May 16, 1916. Pp. 16.

DUNN, S. O. *The new tyranny*. Ry. Age Gaz., Sept. 22, 1916. Pp. 2.

The overweening power of the railway brotherhoods.

DUNN, S. O. *The railways, train employees and the public*. N. Am. Rev., July, 1916. Pp. 14.

DUNN, S. O. *Ten years of railroad regulation*. Scribners, Oct., 1916. Pp. 8.

The case for and against regulation; proposals for improvement.

DUNN, S. O. *The threatened strike on the railways*. N. Am. Rev., Oct., 1916. Pp. 14.

DUNN, S. O. *Why the Intercolonial Railway is a failure*. Ry. Age Gaz., Oct. 13, 1916. Pp. 4.

Another contribution to the discussion of the Canadian government railway system.

ELLIOTT, H. *The case for the railroads*. N. Y. Times Mag., Sept. 10, 1916. Pp. 2.

A railway president's opinion regarding the "surrender of Congress to the brotherhoods."

GATTIE, A. W. *National railways after the war: a reply*. Nineteenth Cent., June, 1916. Pp. 15.

Proposes that control over English railways be transferred from Board of Trade to a Committee of Control composed of representatives or railway stockholders, shippers, and railway employees.

GIBSON, T. *The railroad labor situation*. Moody's Mag., Oct., 1916. Pp. 4.

HAANEL, H. E. *Efficiency testing in train service*. Ry. Age Gaz., July 28, 1916. Pp. 3.

HULER, E. *Some practical aspects of government ownership of the railroads*. Concerning Munic. Ownership, Aug.-Oct., 1916. Pp. 4.

Deals chiefly with the difficulty of financing the purchase of the railways by the government.

HUNGERFORD, E. *Our railroads and the next war*. Collier's, Aug. 19, 1916. Pp. 6, with diagrams.

JOHNSON, E. R. *Railroad valuations and railroad returns*. Mag. of Wall St., July 22, 1916. Pp. 3.

Railways have little to fear from the results of the valuation now under way.

KERR, K. C. *American history as told in transportation literature*. Ry. & Marine News, Apr., May, June, Aug., Sept., 1916. Pp. 4, 7, 5, 5, 5.

Profusely illustrated.

LAFFEY, M. C. *The Chicago & Eastern Illinois railroad*. Moody's Mag., Aug., 1916. Pp. 4.

Financial and operating analysis.

LAFFEY, M. C. *The Delaware, Lackawanna & Western*. Moody's Mag., Sept., 1916. Pp. 3.

Statistical analysis.

LAUCK, W. J. *The transportation industry and the need for a constructive program*. Journ. Am. Bankers Assoc., Oct., 1916. Pp. 4.

LEWIS, E. R. AND OTHERS. *Railway fire prevention*. Ry. Maintenance Engr., Sept., 1916. Pp. 4.

LUNDY, M. H. *Wanted—a square deal*. Ry. Age Gaz., Sept. 15, 1916. Pp. 2.

Discussion of injustice visited on railways and star-route mail carriers by the Post Office Department, because of failure to compensate for increased parcel post service.

MCGRATH, D. J. *Long rides for a nickel*. Elec. Ry. Journ., Aug. 5, 1916. Pp. 4.

Maps of single-fare zones in 24 American cities, the average radius extending from 1.9 miles in Worcester and New Bedford to 10.8 miles in Chicago.

MARKHAM, C. H. *The railroad superintendent*. Pro. St. Louis Ry. Club, Aug. 11, 1916. Pp. 10.

Description of a superintendent's position and duties by the president of the Illinois Central.

MICHAILOVSKY, A. *The Russian railroads and the war*. Russian Rev., July-Aug., 1916. Pp. 6.

MONKSWELL, R. A. H. C. *German railways: early days and development*. Ry. News (London), Sept. 30, Oct. 14, 1916. Pp. 2, 2.

Two articles in an historical series, written by Lord Monkswell.

NAGEL, R. *Die Eisenbahnen Ungarns im Jahre 1915*. Archiv f. Eisenbahnw., May-June, 1916. Pp. 13.

Hungarian railway statistics.

PARK, W. L. *The part of American railways in a plan of national defense*. Nat. Rev., Sept., 1916. Pp. 2.

PARMELEE, J. H. *War payments to the British railways*. Ry. Age Gaz., Aug. 11, 1916.

PAYEN, E. *Les grandes compagnies Françaises de chemins de fer en 1915*. I. *Les recettes brutes*. L'Econ. Franç., June 10, 1916. Pp. 3.

PAYNE, J. L. *Is government ownership in Canada a failure?* Ry. Age Gaz., Oct. 6, 1916. Pp. 3.

Reply to S. O. Dunn's article on the failure of the government railways of Canada (*Journal of Political Economy*, July, 1916).

PORTER, L. C. *Meeting the federal headlight requirements*. Ry. Age Gaz., Aug. 4, 1916. Pp. 4, with illustrations and diagrams.

PRATT, E. A. *The railways and their critics*. Nineteenth Cent., Aug., 1916. Pp. 13.

Reply to articles by Messrs. H. M. Hyndman and A. W. Gattie in earlier numbers of the *Nineteenth Century*.

PLYLE, J. G. *The Life of James J. Hill*. I. World's Work, Oct., Nov., 1916. Pp. 22, 15.

The first articles of a biographical series.

RIPLEY, W. Z. *The railroad eight-hour law*. Rev. Rev., Oct., 1916. Pp. 5.

Analysis of the Adamson act of Sept. 3, 1916, and probable effect on railway operations.

RIPLEY, W. Z. *The two sides*. New Republic, Aug. 26, 1916. Pp. 3.

Analysis of trainmen's demand for eight-hour day.

SALIN, E. *Eisenbahnen und Eisenbahnprojekte in Alaska*. Archiv f. Eisenbahnw., May-June, 1916. Pp. 34.

History of railway development in Alaska; significance of the government railway.

SISSON, F. H. *Railroad control and credit*. Bankers Mag., July, 1916. Pp. 3. Importance of unified policy of railway supervision.

STEVENS, W. B. *The railroad problem in city planning for St. Louis*. Pro. St. Louis Ry. Club, July 14, 1916. Pp. 7.

STROTHER, F. *Louis W. Hill*. World's Work, Sept., 1916. Pp. 6.

Sketch of James J. Hill's son and successor.

THOMPSON, A. W. *Efficiency of railway service in the United States*. Pro. St. Louis Ry. Club, Sept. 8, 1916. Pp. 20.

Largely a statistical comparison between the United States and foreign countries.

THOMAS, F. W. *The training of young men for promotion*. Ry. Age Gaz., Oct. 27, 1916. Pp. 4.

Methods used by the Santa Fé in selecting and training men for mechanical department officials.

THOMPSON, W. H. *Steam railroad electrification*. Bro. Eng. Club of Philadelphia, Oct., 1916. Pp. 9, illustrated.

WARNE, F. J. *Government investigation of railway wages*. Railroad Trainman, Aug., 1916. Pp. 8.

Analysis of Eastern rate cases of 1910 and 1914-1915.

British railways after the war. Ry. News, July 15, 1916. Pp. 2.

Canceling our debt abroad. Annalist, Sept. 25, 1916. P. 1.

Between July 31, 1915, and July 31, 1916, nearly \$1,300,000,000 of American railway securities returned from European holders.

Developing carload freight traffic on Illinois traction system. Elec. Ry. Journ., July 8, 1916. Pp. 10, illustrated with photographs and diagrams.

An epoch in railway electrification. Am. Industries, Aug., 1916. Pp. 3, illustrated.

The Chicago, Milwaukee & St. Paul project.

The great unscrambling of 1925. Unpopular Rev., July-Sept., 1916. Pp. 8.

A fantasy by which all the railways are broken up according to state lines.

The increases in prices of railway material. Ry. Age Gaz., Oct. 13, 1916. Pp. 4.

Specific increases in unit prices from July 1, 1914 to July 1, 1916.

North Western pulverized coal locomotive. Ry. Age Gaz., Aug. 11, 1916.

A new departure in fuel utilization.

Progress on government railroad in Alaska. Railway and Marine News, Aug., 1916. Pp. 3, illustrated.

Railway statistics. Archiv f. Eisenbahnw., May-June, 1916.

Greece (1913).

Some railway myths and fallacies. I. *Alleged superfluity of lines, stations, and depots*. II. *Mobility of railway rolling stock*. III. *Goods traffic*. Ry. News (London), Sept. 30, Oct. 7, 14, 1916. Pp. 2, 4, 4.

Studies in operation—The Western Maryland. Ry. Age Gaz., Aug. 4, 1916. Pp. 7, with map and diagrams.

Le tunnel sous la manche et son influence économique. Journ. des Econ., July 15, 1916. Pp. 10, with map and diagrams.

Discussion by several French economists of the proposed tunnel under the English Channel.

Die vereinigten preussischen und hessischen Eisenbahnen im Rechnungsjahre 1914. Archiv f. Eisenbahnw., May-June, 1916. Pp. 26.

Annual statistics of the Prussian-Hessian state railway system.

Accounting

(Abstracts by Martin J. Shugrue)

BAUER, J. *Allowance for working capital in a rate case*. Pol. Sci. Quart., Sept., 1916. Pp. 17.

Purpose is to analyze the general concept of working capital and to outline how the amount may be fairly determined in a specific case.

BAUER, J. *Bases of valuation in the control of return on public utility investments.* Am. Econ. Rev., Sept., 1916.

BOYCE, W. H. *Complete records help to offset the rising cost of labor and material.* Elec. Ry. Journ., Sept. 16, 1916. Pp. 1½.

BULKELEY, W. V. C. *Storehouse methods that reduce labor.* Elec. Ry. Journ., July 15, 1916. Pp. 2½.

Unique system of arranging stock and keeping storehouse and accounting records which have increased efficiency.

COE, H. W. *Substation records increase efficiency.* Elec. Ry. Journ., Aug. 26, 1916. Pp. 5.

Description of the method of compiling substation operating and maintenance records on Illinois traction system, with illustrations of various forms and methods of presenting cost and other data.

FARNHAM, D. T. *Visualizing the essential facts of a business.* Engg. Mag., Aug., 1916. Pp. 6.

What facts should be shown for control and how to present these facts effectively. Advantages of the graphic method of presenting cost data.

FORSE, W. H., JR. *How to use sinking funds.* Elec. Ry. Journ., Sept. 23, 1916. Pp. 2½.

Perplexing problems arising when bond issues have sinking fund provision and the proper accounting treatment in such cases.

HALL, R. O. *Back to single entry.* Journ. Account., Sept., 1916. Pp. 9.

Single entry has been subject to many crude criticisms, but both in theory and practice it merits more favor than it has received.

HILTON, W. P. *Interest on capital.* Journ. Account., Oct., 1916. Pp. 5½.

Why it should not be included in manufacturing cost.

KEYES, J. B. *Accounting problems in the cane sugar industry.* Journ. Account., July, 1916. Pp. 8.

Necessity of a modern system of cost accounts in the sugar business and important matters to be observed in the planning of one.

KNOEPPPEL, F. J. *Industrial accounting.* III. Journ. Account., Aug., 1916. Pp. 11.

Accountants and engineers have differed in the classification of operation cost. The proper classification. Illustrated with diagrams.

KNOEPPPEL, F. J. *Industrial accounting.* IV. Journ. Account., Sept., 1916. Pp. 10.

The most efficient method of presenting cost data demands that the essential facts shall be recorded in a manner that compels attention. Illustrated with charts and diagrams.

KNOEPPPEL, F. J. *Industrial accounting.* V. Journ. Account., Oct., 1916. Pp. 8.

In price fixing accurate costs alone may answer admirably in a

certain limited number of industries. However, in other industries this method of price determination is hardly reliable.

KUHN, G. W. *How to appraise public utility property.* Elec. Ry. Journ., July 15, 1916.

Important points to be borne in mind in planning appraisals, co-operating with employees of appraised company, handling company records and designing forms.

LINCOLN, E. E. *The control of return on public utility investments.* Am. Econ. Rev., Dec., 1916. Pp. 5.

LIPPINCOTT, J. B. *A method of determining a reasonable service rate for municipally owned public utilities.* Am. Soc. Civil Engs., Sept., 1916.

A method of determining a reasonable service rate for municipally owned public utilities.

McHENRY, W. E. *Is your cost system scientific?* Engg. Mag., Aug., 1916.

Some of the more glaring faults in existing methods are pointed out and remedies suggested in this stimulating article.

MAHON, G. *Interest on capital.* Journ. Account., Oct., 1916. Pp. 6.

In order that the business man may make intelligent comparisons of the various departments and manufacturing processes in his plant, interest should be treated as a true element of cost.

MILLER, F. A. *Keeping mechanical department costs.* Elec. Ry. Journ., Aug. 19, 1916. Pp. 2.

Up-to-the-minute cost data are available through the system which is in use on the Oakland, Antioch, and Eastern Railway.

NICHOLAS, F. *How to reduce the high cost of valuation.* Elec. Wld., July 1, 1916. Pp. 2.

M. R. Maltbie discusses the growing feeling that valuations are sometimes so expensive and unreliable that they are scarcely worth the time and money they require.

PAINE, F. B. H. *Preliminary and indirect costs.* Stone & Webster Journ., Sept., 1916. Pp. 22.

In the treatment of indirect costs (which are as essentially costs as those of a direct nature) our standard accounting systems fail, for they usually provide only a miscellaneous group of accounts in generalities and without such detail instruction as will make possible intelligent distribution of indirect expenditures of time and money.

PORTER, H. F. *Cost keeping and industrial prosperity.* Engg. Mag., June, 1916.

How the Federal Trade Commission is striving to help industries.

REUSSWIG, F. G. *Uniform system of accounting for cities of third class in New York.* Journ. Account., Sept., 1916. Pp. 16.

Many notable defects in existing systems. What the proposed system will do. How the plan was made adaptable in the case of two typical cities of the third class.

ROSS, G. E. *Simplicity the keynote of Oregon's state highway cost-keeping system.* Engg. Record, June 24, 1916.

SAKOLSKI, A. M. *Railroad operating expenses and property values.* Journ. Account., Aug., 1916. Pp. 11.

Deals with separation of operating expenses as between passenger and freight service, with special reference to cases decided recently by the United States Supreme Court and to the cost accounting plans of the Interstate Commerce Commission.

STANDER, L. E. *Accounting system in New York department of water supply.* Journ. Account., Aug., 1916. Pp. 9.

Deals with main outlines of accounting system in use by the department of water supply, gas and electricity in the city of New York.

STARK, C. W. *What the government valuation division is doing and how the work is handled.* Engg. Rec., July 8, 1916.

THUM, E. E. *Cost accounting in the construction and operation of a copper smelter.* Metallurgical & Chem. Engg., May 1, 1916.

Essential points of system. First instalment of a serial.

American railway accounting officers. Ry. Age Gaz., July 7, 1916. Pp. 10.

Twenty-eighth annual meeting of the Association of American Railway Accounting Officers, June 28, 29, and 30. Addresses and reports of various committees.

The first tentative valuation reports. Ry. Age Gaz., Aug. 4, 1916. Pp. 21.

After two and one half years of work, the federal valuation forces have completed tentative reports on the properties of the Texas Midland, the Atlanta, Birmingham & Atlantic, the Norfolk Southern, and the Kansas City Southern.

Fundamentals of a cost system for manufacturers. Federal Trade Com. Bull., July, 1916.

Object is to show importance of accurate manufacturing costs and the fundamental principles of a cost system, how it operates, the results obtained, and the benefits to be derived.

Overhead charges in the Bay State case. Elec. Ry. Journ., Aug. 19, 1916. P. 1/2.

Company's expert estimates 12.74 per cent of structural cost.

Proposition on branch accounts. Pace Student, June, 1916.

Principles of branch accounting illustrated with a practical problem and its solution.

Public Utilities

(Abstracts by Ralph E. Heilman)

ARCHIBSON, C. B. *The need for a consistent general state policy as to public utilities.* Commonwealth Rev. Univ. Oregon, Apr., 1916.

Considers the need of a state-wide utility policy in Oregon. Condemns franchise grants by municipalities, insists upon fair taxation, and supervision of security issues.

BAUER, J. *The control of return on public utility investments.* Pol. Sci. Quart., June, 1916.

Emphasizes the desirability of the development of an explicit policy as to return on investments, by legislative enactment.

BAUER, J. *The idea of capitalization as applied to public service corporations.* Journ. Account., July, 1916.

Capitalization, in a broad sense, should be regarded as all permanent investment, including all interest bearing obligations, all advances from associated companies, all capital stock investments, surplus, and all reserve created out of income.

CONWAY, T. *Current tendencies in the railway business.* Elec. Ry. Journ., July 1, 1916.

The effect of jitneys on financing and revenues of electric lines. Predicts a revival in gross and net earnings of electric railways.

DOOLITTLE, F. W. *Some problems of the electric railway industry.* Elec. Ry. Journ., June 3, 1916.

The serious effects on the finances of electric railways, of slight increases in required service standards, or labor costs, or slight decreases in fares.

DOOLITTLE, F. W. *The present and future development of interurban railways.* Elec. Ry. Journ., Sept. 2, 1916.

An analysis of the causes of the unsatisfactory returns of electric interurban lines, and a discussion of conditions which will produce better results.

HEILMAN, R. E. *The control of interstate utility capitalization by state commissions.* Journ. Pol. Econ., May, 1916.

Discusses the problem of jurisdiction in the issuance of securities by interstate utilities. Urges federal control as only adequate solution.

NASH, L. R. *Financial problems of electric railways.* Stone & Webster Journ., June, 1916.

Considers earnings, operating expenses, operating ratios, taxes, investment, the cost of securing capital, and the financial effects of public regulation.

NASH, L. R. *History and economics of the jitney.* Stone & Webster Journ., May, 1916.

Jitney competition has decreased street railway earnings, but financial results of jitney operation unsatisfactory. Jitneys might well be used by street railways as feeders.

PERKINS, J. H. *Differential rates for electric service, their evolution and justification.* The Bulletin (United Gas & Elec. Engg. Corp.), Aug., 1916.

The jurisdiction for special rates for retail and wholesale power and off peak service.

ROUX, G. P. *Evolution of public utilities.* Engg. Mag., June, 1916.

Origin and development of public utility enterprises, and the relation of the public to such projects.

SCHARFF, M. R. "Low rates to large users." *Stone & Webster Journ.*, June, 1916.

Criticises recent decision of the Washington Public Utilities Commission, and insists that low rates to large users are not necessarily discriminatory.

SCOTT, A. C. *Growth of a combination utility in a small city.* *Elec. Wld.*, May 6, 1916.

Development of a utility property in Cameron, Texas, which furnishes electric service, water, and ice.

WATKINS, G. P. *Electrical rates: The load factor and the density factor.* *Quart. Journ. Econ.*, May, 1916.

Considers the influence upon electrical rates of the time of consumption, and the quantity consumed.

WATKINS, G. P. *The theory of differential rates.* *Quart. Journ. Econ.*, Aug., 1916.

Granting of differential rates rests upon the desirability of more fully utilizing fixed investment by granting specially low rates to business that can only be so obtained. This principle opposed to rates lower than separable cost, and in favor of a differential treatment of joint cost.

Analysis of Merrill report on water-power. *Elec. Wld.*, July 1, 1916.

Analyzes the Merrill report made to Senate by the Secretary of Agriculture upon the water power situation in the United States. Maintains that report is laden with errors, that its data are deceptive and that animus is at the bottom of its conclusions.

The Commonwealth Edison Company in the industry. *Elec. Wld.*, May 20, 1916.

Describes the growth and achievements of the Commonwealth Edison Company of Chicago.

Improvement of public relations. *Elec. Ry. Journ.*, Sept. 2, 1916.

An analysis of the objects of establishing good public relations, and of the more important methods by which this result can be accomplished.

An improved form of street lighting contract. *Elec. Wld.*, Sept. 2, 1916.

Features of a new form of indeterminate agreement, adopted by the Wisconsin Edison Company and several cities in the Milwaukee district, which will provide low cost and eliminate risks to the company.

Operation of an Ohio interconnected system. *Elec. Wld.*, June 3, 1916.

Describes the operation of the interconnected transmission system of the Ohio Service Company.

To prevent the interruption of public utilities. *Greater N. Y.*, Sept. 25, 1916.

Proposal of the Merchants Association for preventing the cessation of public utility operation in case of strikes.

Prospects poor for Seattle municipal lines. *Elec. Ry. Journ.*, June 24, 1916.

The superintendent of public utilities reports that Division A of the municipal line will probably have to be operated twenty years or more before it becomes a paying line.

Review of jitney conditions in California. Elec. Ry. Journ., Aug. 12, 1916.

Movement for regulating and controlling operation of jitneys. Decrease in number of jitneys.

San Francisco municipal system without exposition traffic. Elec. Ry. Journ., July 22, 1916.

Comparison of earnings on San Francisco municipal electric lines for 1915, during and since the exposition. Significance of deficits thus far shown in 1916.

Six-cent fare disallowed for Bay State. Elec. Ry. Journ., Sept. 9, 1916.

Discussion of the decision of the Massachusetts Public Service Commission in the Bay State Street Railway case, in which the commission point out how to secure additional revenue through increased efficiency.

Some comments by Samuel Insull on public utility commissions. Elec. Ry. Journ., May 20, 1916.

The more centralized and powerful are public utility commissions, the better it is for utility corporations.

Street lighting by indeterminate contracts. Elec. Rev. & Western Electrician, May 9, 1916.

Outline of a plan of street lighting upon a basis of cost of service.

Study of Chicago's congested traffic. Elec. Ry. Journ., July 29, 1916.

Discussion of the report of Board of Supervising Engineers on the causes of congestion, and its recommendations for improving street railway service.

Investments

(Abstracts by Arthur S. Dewing)

BALCOM, A. B. *Fox farming in Prince Edward Island: a chapter in the history of speculation.* Quart. Journ. Econ., Aug., 1916. Pp. 17.

Became speculation and advanced enormously up to the opening of the war. In its industrial aspect, as distinct from speculation, it is a permanent and legitimate industry. The business organization and increase in prices were normal developments.

BLUE, F. K. *The regulation of a government fostered merchant marine by the automatic tempering of securities.* Am. Econ. Rev., Dec., 1916. Pp. 15.

BLUNT, J. E. and MORRIE, R. L. *Reports of railroad bonds (committee).* U. S. Investor, Oct. 14, 1916.

The difficulties of marketing railroad bonds at present time. Suggestions for making railroad reports more useful to investors.

DEWING, A. S. *Our economic peril.* Yale Rev., July, 1916.

A widespread boom will follow war and then a very drastic panic.

HOYT, A. G. *Why public utility bonds are especially adapted for investment of bank and trust company funds.* Trust Companies, Apr., 1916.

Very favorable comment on public utility bonds. Fails, however, to discriminate between different grades.

OTIS, C. A. *Report of committee on real estate bonds*. I. B. A. of A. Bull., Apr. 8, 1916.

Growing popularity of this type of bond.

PORTER, R. B. *The effect of the war on local securities*. Moody's Mag., Aug., 1916.

Interesting and timely outline of the expansion of the manufacturing industries of one fairly typical industrial community, Syracuse.

QUAIL, J. *The thrift movement and the future of investment*. Finan. Rev. Rev., Sept., 1916.

Large thrift propaganda in England and increased earnings has probably increased the number of investors. Need of proper direction to the small investor. Many small investors means better coöperation between labor and capital.

Commercial paper modernized. Journ. Am. Bankers Assoc., Aug., 1916.

Describes a form of negotiable note covering a specific sale of merchandise which bears on its face the conditions enabling it to meet the requirements of the federal reserve act.

The investment aspect of rubber shares. Finan. Rev. Rev., Sept., 1916.

Advises realizing on rubber securities and reinvesting in other channels, particularly those opened up by the war (presumably government obligations).

Corporations and Trusts

(Abstracts by Arthur S. Dewing)

BIRCK, L. V. *Statsmonopler og Regalretten*. Nat. Øk. Tids., March-April, 1916. Pp. 36.

A lecture on state monopolies showing the marked tendency in this direction in Europe at the present time.

CARPENTER, N., JR. *The Westinghouse Electric and Manufacturing Company, the General Electric Company, and the panic of 1907*. II. Journ. Pol. Econ., Apr., 1916.

Careful comparative study of the reasons which led the Westinghouse Company to succumb to and the General Electric Company to successfully resist the panic of 1907. Chief causes of Westinghouse troubles too heavy dividends, foreign subsidiaries, and short term loans.

DREYFUS, E. D. *Reckoning with costs of superseded equipment*. Elec. Wld., Aug. 5, 1916.

Contents that owing to very rapid advance of arts, it is inexpedient to set aside out of earnings enough to care for obsolescence of equipment. Therefore right to capitalize at least a part of superseded equipment.

KNAUTH, O. W. *Capital and monopoly*. Pol. Sci. Quart., June, 1916.

Tries to show that competition inevitably leads to monopoly in the same or another stage of industry. Argument weak because of narrow selection of cases.

LAFFEY, M. C. *Chicago and Eastern Illinois Railroad*. Moody Mag., Aug., 1916.

Analysis of financial position of road and attempted explanation of reason for present distress. Shows remarkable case of evil resulting to both parent and subsidiary of the holding company structure.

OLDHAM, J. E. *Public service corporations (committee report)*. U. S. Investor, Oct. 14, 1916.

While ostensibly merely a report of a committee of the I. B. A. it embodies a remarkably clear and comprehensive statement of the strengths and possible weaknesses of these securities.

PRINCE, T. *The Rock Island—reorganization by anesthesia*. Moody's Mag., Aug., 1916.

A remarkably penetrating and comprehensive account of the financial situation of the Rock Island, based largely on the Kendrick report. Writer urges heavy assessment on stockholders that the road may be quickly rehabilitated.

SHAW, W. A. *Issuance of stock for purposes of consolidation*. Elec. Wld., Aug. 5, 1916.

Report of Illinois Public Service Commission empowering promoters of a consolidation of electric light properties to water stock at time of merger. Clear argument of increase of value due to consolidation.

SLICHTER, S. H. *The Cream of Wheat case*. Pol. Sci. Quart., Sept., 1916.

Uses the case as a theme for a general discussion of question of fixed prices. A very comprehensive discussion. Neglects fact that fixed prices inhibits the widest kind of competition among classes of producers and distributors.

Labor and Labor Organizations

(Abstracts by George E. Barnett)

BARNETT, G. E. *Growth of labor organization in the United States, 1897-1914*. Quart. Journ. Econ., Aug., 1916. Pp. 26.

The increase in trade-union membership was at a much more rapid rate than the increase in population or in the number of gainfully occupied persons.

BORANQUET, H. *Women in industry*. Econ. Journ., June, 1916. Pp. 9.

The relation between working hours and output in munition plants.

CARLTON, F. T. *Essentials in the study of labor organizations*. Sci. Mo., Aug., 1916. Pp. 6.

Physical and social environment determines the structure and function of labor organizations.

FITCH, J. A. "The fundamental principle of arbitration." Survey, Sept. 23, 1916. Pp. 3.

HUTCHINS, B. L. *The position of the woman worker after the war*. Econ. Journ., June, 1916. Pp. 8.

An estimate of the forces making for new developments and of the forces tending in the conservative direction.

LEISENBERG, W. M. *Bringing the man to the job*. Annalist, Aug. 21, 1916. Pp. 2.

Favors a federal board to unite the state and local employment exchanges into a national system.

PAYEN, E. *Le chômage et le placement depuis la guerre*. L'Econ. Franç., July 15, 1916. Pp. 3.

The measures taken in France to lessen unemployment.

RAWSON, S. W. *War and wages in the iron, coal and steel industries*. Econ. Journ., June, 1916. Pp. 9.

The increases in wages, outside of those industries in which great increases in output were possible, have not been startling.

RIDER, H. A. *Bibliography on direct labor versus contract system in municipal work*. Special Libraries, June, 1916. Pp. 5.

USSING, C. *Den faste Voldgiftsret*. Nat. Øk. Tids., May-June, 1916. Pp. 30.

A lecture on the new permanent court of arbitration and collective bargaining in Denmark.

WOLMAN, L. *Collective bargaining in the glass bottle industry*. Am. Econ. Rev., Sept., 1916. Pp. 19.

The building trades history. Am. Federationist, July, 1916. Pp. 12.

Brief history of the Building Trades Department of the A. F. of L. *General tie-up threatened in New York*. Elec. Ry. Journ., Aug. 5, 1916. Pp. 6.

New agreement in cloak, suit, and skirt industry in New York City. Mo. Rev. U. S. Bureau of Labor Statistics, Sept., 1916. Pp. 6.

Railway strike. Averted by legislation. Ry. Age Gaz., Sept. 8, 1916. Pp. 2.

Some notes on the basic eight-hour day question. Ry. Age Gaz., Sept. 22, 1916. Pp. 4.

Money, Credit, and Banking

(Abstracts by Don C. Barrett)

ABBOTT, W. T. *Evolution and recent achievements in American banking*. Trust Companies, Aug., 1916. Pp. 6.

Present conditions call for American banks to finance world's commerce. Laudation of trust department of the trust company.

ALLEN, W. H. *Has the reserve act made good?* Moody's Mag., July, 1916. Pp. 3.

ALLEN, W. H. *To whom has the reserve act made good?* Moody's Mag., Sept., 1916. Pp. 3.

BEDFORD, H. D. *The monetary difficulties of early colonisation in New Zealand*. Econ. Journ., June, 1916. Pp. 20.

Government debentures served as inconvertible paper money. After monopolizing note issues for a long period the state for nearly fifty years withdrew from the sphere of banking.

BELLOM, M. *Le chèque postal*. Journ. des Econ., July, 1916. Pp. 7.

BELLOM, M. *Le paiement des dépenses de l'Etat et des départements par virements de banque*. L'Econ. Franç., Aug. 5, 1916. Pp. 3.

BOVIE, V. M. *How the U. S. assay office handles huge imports of gold.* Trust Companies, Sept., 1916. Pp. 4.

Explains how a force of 100 men cares for \$350 million of gold in a year.

CANN, H. V. *Finance and banking.* Century, Aug., 1916. Pp. 3.

Plea for branch banking.

CARBETTI, G. *Il reinvestimento dei depositi in buoni del tesoro.* Riv. di Sci. Banca, May, 1916. Pp. 7.

DAVENPORT, H. J. *Capital and interest.* Annalist, July 17, 1916. Pp. 2.

Defects in the traditional concept of the kind of capital which determines interest rates which have resulted in wide differences between banking fact and economic theory.

DAVIDSON, C. *British war loans: the value of the inscription method—a reply to Mr. Horace A. Gifford.* Scottish Bankers Mag., July, 1916. Pp. 6.

Deals with the method of transfer at the Bank of England.

DELLER, C. H. *The place of the Morris plan of industrial loans in the organization of credit for small borrowers.* Econ. Wld., Mar. 11, 1916. Pp. 4.

A new growing system of special banks for poor people, especially laborers, described and explained. Might serve as a model for use in country districts.

DEL MAR, A. *The passing of the Witwatersrand mines.* Journ. Am. Bankers' Assoc., Aug., 1916. Pp. 3.

The banking and financial world should make preparations to face a decrease in the gold supply.

DEL VECCHIO, G. *Considerazioni a favore di una unità monetaria internazionale.* Riv. di Sci. Banca, June, 1916. Pp. 9.

EATON, J. N. *Effect of the federal reserve act on the commercial paper market.* Journ. Am. Bankers Assoc., Aug., 1916. Pp. 5.

So long as reasonably cheap money prevails and the Federal Reserve Board continues to make single-name paper eligible for rediscount, it is probable that little effect will result.

FALK, O. T. *Will London be a free market for gold after the war?* Nineteenth Cent., July, 1916. Pp. 9.

FLORA, F. *I nuovi buoni del tesoro.* Riv. di Sci. Banca, June, 1916. Pp. 7.

FRAME, A. J. *The dangerous drift towards monopolized banking in the United States.* Econ. Wld., Aug. 12, 1916. Pp. 5.

GOODHUE, E. W. *Some economic effects of the European war on the United States. III. The inauguration of the federal reserve system.* Journ. Am. Bankers Assoc., July, 1916. Pp. 8.

Effect of release of reserves. Note issues of the reserve banks. Rediscount operations. War's influence on acceptances, deposit of government funds and the independent treasury.

GOODHUE, E. W. *Some economic effects of the European war on the United*

States. IV. A period of prosperity and its results. Journ. Am. Bankers Assoc., Aug., 1916. Pp. 9.

War business versus factors that indicate conditions fundamentally sound. Prosperity curve shows the highest point ever attained. Some obstacles to further development. High wages and extravagance.

GUXOT, Y. *La finance internationale.* Journ. des Econ., Aug., 1916. Pp. 14.

Based on Withers' *International Finance*, this article discusses the relation of the banking world to international politics.

KAVANAUGH, T. J. *Essentials in granting bank credits.* Trust Companies, Aug., 1916. Pp. 7.

The main feature of bank credit is honesty. Discusses inventory, depreciation, appreciation, etc.

LARKWORTHY, F. *The international exchange.* Econ. Wld., June 24, 1916. Pp. 3.

MILLER, A. C. *Federal reserve system has mobilized gold and checked inflationary tendencies.* Trust Companies, July, 1916. Pp. 2.

The note issuing policy has diminished the tendency of inflation and provided a reservoir of gold which can be tapped without shock or anxiety.

NIKOLAISEN, J. B. *Postsparekasser.* Nat. ök. Tids., March-April, 1916. Pp. 19.

Recommends postal savings banks for Denmark.

NOYES, A. D. *The world's money markets in war time.* Scribner's, Aug., 1916.

Despite the investment of \$1,000 millions during the single year 1915 in loans to foreign countries, and despite the rapid revival in home trade with its demand on credit, money rates on Wall Street never in that year rose above the low rate of 3 per cent. Explanation of this result and prospect of a change.

PATTERSON, E. M. *Inflation and the federal reserve system.* Trust Companies, Aug., 1916. Pp. 4.

Since the beginning of the war, the volume of money and credit in the United States has increased largely and rapidly, but the federal reserve system has not developed far enough to have caused the inflation.

PUTNAM, G. E. *The federal farm loan act.* Am. Econ. Rev., Dec., 1916. Pp. 20.

SILBERLING, N. J. *The mystery of clearings.* Annalist, Aug. 14, 1916. P. 1.

Relation between clearings and speculation in New York and elsewhere in the country.

SMITH, J. C. *The standardisation and equation of money-values.* Bankers' Mag. (London), Aug., 1916. Pp. 10.

A plea for monetary reform in favor of the adjustment of the legal value or debt-paying power of money in a manner "equitably reciprocal to the variations in the exchange value, or purchasing power, of money."

SPALDING, W. F. *Concerning silver*. Bankers' Mag. (London), Sept., 1916. Pp. 5.

The instability and disadvantages of silver as a currency will render improbable readoption by countries which have cast it off.

SPRAGUE, O. M. W. *The federal reserve banking system in operation*. Quart. Journ. Econ., Aug., 1916. Pp. 38.

Review of operation. Development is slow but satisfactory. It has capable management and no fundamental defects in organic law. The collection system, lending operations and influence of reserve banks toward restraint in periods of excessive business expansion, but toward relief in emergencies, are selected for special discussion.

SPRAGUE, O. M. W. *Russian exchange misinterpreted*. Russia, May, 1916. Pp. 3.

Decline "is largely due to temporary influences."

STODDART, A. *Speculation in foreign exchange*. Annalist, Sept. 25, 1916. Pp. 2.

Study of the belligerent exchanges with the conclusion that the greatest chance for profit is in the mark.

THOMPSON, F. W. *Some debatable provisions in the new federal loan act*. Trust Companies, Aug., 1916. Pp. 2.

Approval of the act will depend upon the policy of the farm loan board.

VITA, A. *L'interesse sui depositi e le condizioni del mercato*. Riv. di Sci. Banca, 1916. Pp. 12.

WAGEL, S. R. *Analysis of bank accounts applied to the statement of the bank of England*. Journ. Am. Bankers Assoc., July, 1916. Pp. 4.

Loans made by the bank of England to any other bank in the United Kingdom are counted by the latter as a reserve.

WAGEL, S. R. *Analysis of bank accounts applied to the English joint stock banks*. Journ. Am. Bankers Assoc., Aug., 1916. Pp. 6.

Three divisions of the London joint-stock company are considered, the balance sheet being the most important.

WAGEL, S. R. *European commercial banks and their affiliations with domestic and foreign trade*. Econ. Wld., Sept. 23, 1916. Pp. 3.

European countries having trade with Eastern countries transact all business through branch banks. Great Britain has the largest number.

WARBURG, P. M. *The federal reserve system and the banks*. Moody's Mag., July, 1916. Pp. 5.

Address before New York State Bankers' Association. Deals with broader and more fundamental questions.

WARBURG, P. M. *The future of the federal reserve system*. Moody's Mag., Oct., 1916. Pp. 4.

Address before the American Bankers Association, Kansas City meeting.

WARBURG, P. M. *Need of mobilizing our gold.* *Annalist*, Oct. 3, 1916. Pp. 2.
Small amount of the metal is held as free gold. More of it ought to be. Present lending power of reserve banks.

WHITAKER, A. C. *Currency depreciation in war time.* *Trust Companies*, July, 1916. Pp. 6.

Discusses various tests of depreciation with especial reference to current experience of England, France, and Germany.

WILLIS, H. P. *American business and finance after the war.* *Journ. Pol. Econ.*, June, 1916. Pp. 25.

Discussion centers around the federal reserve system. Prophecies cautiously. To secure the preëminence of this country as a financial and banking center our banks must be kept in a liquid, safe, and conservative position, even at the cost of immediate profit.

Agrarian and land credit in Italy during the five years 1910-1914. *Intern. Rev. Agri. Econ.*, July, 1916. Pp. 8.

Shows the rapid growth of the seven land credit establishments in Italy.

The banking half-year. *Bankers' Mag.* (London), Aug., 1916. Pp. 5.

Successful financially despite the fact that numerous extra expenses were incurred; e. g., paying men who had gone into active military service.

Banking profits in the first half of 1916. *Bankers' Mag.* (London), July, 1916. Pp. 3.

Dividends will diverge very little from that of last year.

The budget cheque system. *Bankers' Mag.*, Aug., 1916. Pp. 5.

Advantages of the system over present method.

Concentrated banking power. *Annalist*, Oct. 9, 1916. Pp. 2.

Record of the hundred largest national banks shows that twenty New York institutions hold one fifth of resources of all federal institutions.

A criticism of the administration of the federal reserve system. *Econ. Wld.*, Sept. 2, 1916. Pp. 2.

Discussion of Fowler's contention that federal reserve bank issues are not only dangerous and expensive but have brought nothing but expansion.

The imperial bank of Germany and report for the year 1915 (two articles). *Bankers' Mag.* (London), Sept., 1916. Pp. 34.

Despite the disadvantages of war the imperial bank has been able to meet all demands. The increase in gold reserve has been steady, though less than that of previous year.

International trade as a sign of national prosperity. *Bankers' Mag.* (London), July, 1916. Pp. 7.

In order to hold the present healthy trade the United States government must coöperate and educate men of ability to represent the country.

Land credit in Indo-China. Intern. Rev. Agri. Econ., July, 1916. Pp. 16.

Present conditions and suggested reorganization of land credit.

The mortgage movement in Prussia up to 1913, analysed according to occupations of the mortgagors. Intern. Rev. Agri. Econ., Aug., 1916. Pp. 6.

The national bank of Italian rural credit societies and its first results. Intern. Rev. Agri. Econ., June, 1916. Pp. 5.

The bank a center for the rural societies must be judged on basis of what it may accomplish in normal times. Outlook good.

Note issue and the war. Bankers' Mag. (London), July, 1916. Pp. 6.

Unexpected employment of paper currency. Two reasons for enormous expansion: rapid increase in expenditures and therefore in exchange of goods by belligerents, and desire to increase the revenues. Further increase of issue will be slight.

Popular co-operative credit. Intern. Rev. Agri. Econ., May, June, July, 1916. Pp. 15, 15, 10.

(1) Coöperative societies in Russia were founded in 1865 by a private land owner. Rapid growth toward 1880 after inclusion of poorer peasants. Much state aid now given. (2) Discusses field of operation, financial status, and tendencies manifested in Russia. (3) Coöperative societies in Russia have secured great results with scanty means.

Pros and cons of the use of federal reserve notes in bank reserves. Journ. Am. Bankers Assoc., Aug., 1916. Pp. 4.

European banks do not require cash reserves and if the federal reserve banks could secure an approximation of control of the general situation it would not seem necessary here.

A real flood of gold. Annalist, July 24, 1916. P. 1.

Enormous movement to this country in recent months may be only beginning of a veritable tidal wave.

The report of the bank of France for 1915: Transactions for 1915. (Two articles.) Bankers' Mag. (London), Aug., 1916. Pp. 35.

During the year of 1915 the stock of gold held by the bank has increased £36 millions while much was done in promoting the 5 per cent loan for foreign defense and in dealing with the complicated problems of foreign exchanges.

Study course in savings banking. Lesson 8: *Savings banking in South America.* Journ. Am. Bankers Assoc., Aug., 1916. Pp. 4.

Les déplacements d'or depuis le début de la guerre européenne. L'Econ. Franç., June 24, 1916. Pp. 2.

Prices

COLLET, C. E. *Cost of food for an adult woman.* Journ. Royal Stat. Soc., May, 1916.

VUOLI, R. *L'intervento degli enti pubblici nella delimitazione dei prezzi dei generi di prima necessità.* Riv. Intern., Aug., 1916. Pp. 24.

Public fixation of war prices in Italy.

WARMING, J. *Krigen og Prisniveauet*. Nat. òk. Tids., March-April, 1916. Pp. 46.

A study of the effects of the war on the price level.

WOOD, F. *The increase in the cost of food for different classes of society since the outbreak of war*. Journ. Royal Stat. Soc., July, 1916.

Prices in Canada—review of the department's annual report on wholesale and retail prices for the calendar year 1915. Labour Gaz. (Ottawa), July, 1916.

La hausse des prix depuis la guerre. L'Econ. Franç., Aug. 26, 1916.

Tariffs

D. B. *La Ligue du libre-échange en juin 1916*. Journ. des Econ., July, 1916.

EMERSON, G. *Tariff making by log rolling*. Ann. Am. Acad., Mar., 1916.

GARDINER, A. G. *England and free trade*. New Repub., Sept. 30, 1916. Pp. 2.

Wholly unlikely that England will adopt a protective tariff at close of war.

MARVIN, W. L. *The dyestuff situation*. Bull. Nat. Assoc. Wool Mfrs., July, 1916.

SUKSENA, I. B. *India and imperial preference*. Wealth of India, May, 1916.

Fifty-first annual meeting of the National Association of Wool Manufacturers. Bull. Nat. Assoc. Wool Mfrs., Apr., 1916.

Public Finance

(Abstracts by Charles P. Huse)

BLAKEY, R. G. *The new revenue act*. Am. Econ. Rev., Dec., 1916. Pp. 12.

CAMATA, A. *Problemi finanziari della guerra*. Giorn. d. Econ., Aug., 1916. Pp. 47.

CARVER, T. N. *How to finance a great war*. Annalist, July 10, 1916. Pp. 2.

Emphasizes need of relying upon taxation.

FALCK, E. *L'impôt général sur le revenu*. Journ. des Econ., June, 1916. Pp. 12.

A critical discussion of the new French tax on income, "the greatest fiscal revolution since 1789."

FLORA, F. *Il prestito nazionale 5 per cento*. Riv. di Sci. Banca, Jan., 1916. Pp. 23.

GOING, M. C. *German war finance*. Journ. Pol. Econ., June, 1916. Pp. 34.

Describes Germany's financial preparation for the war, her war loans and loan banks, and the steady depreciation of her paper money.

GUYOT, Y. *Les troisièmes douzièmes provisoires de 1916 et les projets d'impôts*. Journ. des Econ., June, 1916. Pp. 24.

A discussion of the latest French budget.

JÈZE, G. *Les finances de guerre de l'Angleterre*. Rev. Sci. Légis. Finan., April-May-June, 1916. Pp. 92.

Continues critical study of England's policy of war finance from September, 1915.

McCLOY, J. F. *The inheritance tax—double and multiple*. Trust Companies, Sept., 1916. Pp. 4.

Condemns the prevalent system of double taxation of inheritances in the United States.

MOSES, R. *Standardization of salaries and grades in civil service*. Am. Pol. Sci. Rev., May, 1916. Pp. 19.

A discussion of the principles of standardization, illustrated by the experience of New York City.

PAISH, G. *War finance*. Journ. Royal Stat. Soc., May, 1916. Pp. 33.

An excellent statement of the way England has met the financial demands of the war.

PATERSON, G. W. *The economic and social un wisdom of an income tax on life insurance*. Econ. Wld., Sept. 2, 1916. Pp. 3.

Contends that taxation of the surplus of life insurance companies as done in the British and South African income tax laws is unjust.

PAVLOV, L. *The proposed government sugar monopoly*. Russian Rev., Sept., 1916. Pp. 6.

Outlines a plan now being considered by the Russian government for a sugar monopoly to offset in part the loss of the vodka revenue.

RIGHTOR, C. E. *Recent progress in municipal budgets and accounts*. Nat. Munic. Rev., July, 1916. Pp. 9.

Reviews movement for budget reform in New York, Boston, Philadelphia, and other cities.

Seligman, E. R. A. *Tax exemption through tax capitalization: a reply*. Am. Econ. Rev., Dec., 1916. Pp. 19.

SCHELLE, G. *Les finances de la Ville de Paris*. Journ. des Econ., June, 1916. Pp. 7.

The effects of the war upon the finances of Paris and some comparisons with conditions in 1871.

SELWYN-BROWN, A. *England's financial status*. Moody's Mag., Sept., 1916. Pp. 5.

A concise statement of England's financial policy in this war and some comparisons with previous wars.

WILLIAMS, H. D. *Effect of new federal income tax changes*. Trust Companies, Sept., 1916. Pp. 3.

A brief statement of the changes in the federal income tax and a consideration of their effect upon investments.

WILLIAMSON, C. C. *Shall New York City untax buildings?* Survey, June 24, 1916. Pp. 3.

A review of the recent report of Mayor Mitchel's committee on taxation.

WINSTON, A. P. *Chinese finance under the republic*. Quart. Journ. Econ., Aug., 1916. Pp. 42.

A valuable survey of the reforms accomplished under the nationalist policies of the republic.

The history of appropriations in the legislative session of 1916. Munic. Research, Apr., 1916. Pp. 134.

A valuable study of Governor Whitman's recent attempt to secure budget reform in New York state.

Income tax department. Journ. Account., Aug., 1916. Pp. 19.

Gives text of bill as introduced by the government to amend federal income tax law.

Three proposed constitutional amendments for control of the purse. Munic. Research, May, 1916. Pp. 86.

A comparative study of the merits of the Maryland and New York plans for securing budget reform.

L'impôt général sur le revenu. Rev. Sci. Légis. Finan., Apr.-May-June, 1916. Pp. 18.

Instructions given by minister of finance in regard to the enforcement of the French income tax law of 1914.

Population and Migration

(Abstracts by William B. Bailey)

BAINES, J. A. *The recent trend of population in England and Wales.* Journ. Royal Stat. Soc., July, 1916. Pp. 18.

A study of the birth-rate, marriage-rate, fertility, death-rate, natural increase-rate and distribution of population by age in Great Britain during the past thirty years.

BRIGHAM, A. P. *The population of New York state.* Geog. Rev., Sept., 1916. Pp. 12.

A study of the growth of the population of New York from 1790 to 1910 compared with certain other states and the changes in the distribution of the population in New York state.

CANNAN, E. *A study in Malthusianism.* Econ. Journ., June, 1916. Pp. 6.

The possible effect of war in checking the birth-rate.

DUBLIN, L. I. *Factors in American mortality.* Am. Econ. Rev., Sept., 1916. Pp. 26.

DUMONT, H. *Antropología y patología comparada de los negros esclavos.* Rev. Bim. Cubana, Jan.-Feb., 1916. Pp. 16.

FISHER, I. *The mortality of our public men.* Quart. Pub. Am. Stat. Assoc., Mar., 1916. Pp. 15.

A study of the mortality of the presidents, vice-presidents, senators, and representatives of the United States compared with insured lives of others.

GIRAULT, A. *La diminution de la population adulte mâle en Europe.* Rev. d'Econ. Pol., Sept.-Dec., 1915.

GOMPERS, S. *Reasons for immigration restriction.* Am. Federationist, Apr., 1916. Pp. 4.

A brief article advancing no new arguments in favor of restriction.

KELLOR, F. A. *Americanization by industry*. Immigrants in Am. Rev., Apr., 1916. Pp. 12.

The duty of employers of labor to do what they can to Americanize their labor forces.

MASSABUAU, J. *Les lois contre la famille: les réformes nécessaires*. Réf. Soc., July 1, 1916.

A discussion of the necessity of revising the divorce law, the law concerning the celebration of marriage and the legitimation of illegitimate children, in order to reestablish the French family and repeople the country.

NIXON, J. W. *War and national vital statistics with special reference to the Franco-Prussian war*. Journ. Royal Stat. Soc., July, 1916. Pp. 37.

The effect of the Franco-Prussian war upon the death-rate, birth-rate, and marriage-rate of England, France, and Prussia.

RUSSELL, B. *Marriage and the population question*. Intern. Journ. Ethics, July, 1916. Pp. 18.

An argument for government aid in the rearing of children.

Housing

(Abstracts by James Ford)

ADSHHEAD, S. D. *Newtown planning legislation for India and Canada*. Town Planning Rev., Apr., 1916. Pp. 4.

ADSHHEAD, S. D. *The standard cottage*. Town Planning Rev., Apr., 1916. Pp. 6.

FARRELL, G. *Housing in Massachusetts towns*. Am. City, Sept., 1916. Pp. 8.
Study of effect of Tenement House act for towns.

GILBERT, C. D. *Low cost houses for industrial operatives*. Concrete, June, 1916. Pp. 2.

Plan and specifications for a four-room house.

HEDGER, C., BACON, A. F., and KNOWLES, M. *Housing health problems among immigrants*. Immigrants in Am. Rev., July, 1916. Pp. 8.

HIBBS, H. H., JR. *Infant mortality and urban housing and living conditions*. Journ. Sociologic Medicine, Oct., 1915. Pp. 23.

INLDER, J. *Flint*. Survey, Sept. 2, 1916. Pp. 9.

Housing and social conditions of Flint, Michigan.

KIMBALL, T. *The reconstruction of French and Belgian towns destroyed in the war*. Landscape Arch., July, 1916. Pp. 7.

LASKAR, B. *German war monuments of tomorrow*. Survey, Apr. 1, 1916.
Garden cities planned for war cripples.

MULVIHILL, F. J. *Districting by ordinance in Sacramento*. Am. City, July, 1916. Pp. 3.

NOLEN, J. *Waterbury housing report*. Supplement to (Waterbury) Sunday Republican, Sept. 3, 1916. Pp. 8.

PETTIT, G. M. *Made-towns and tenement houses*. Journ. Royal Sanitary Inst., June, 1916. Pp. 15.

POTTER, Z. L. *Penns Grove*. Survey, Dec. 4, 1915. Pp. 8.

Housing and social conditions at some of the du Pont villages of New Jersey.

RAMSEY, S. C. *The small house of a hundred years ago*. Town Planning Rev., Apr., 1916. Pp. 4.

The housing problem—Athens and its solution. Garden Cities & Town Planning, June, 1916. Pp. 4.

Insurance and Pensions

(Abstracts by Henry J. Harris)

BLANCHARD, R. H. *Municipal fire insurance in Great Britain and the United States*. Nat. Munic. Rev., July, 1916. Pp. 7.

Methods used by municipalities in insuring municipal property.

BROOKS, C. E. *Life insurance for professors*. Univ. Calif. Pubs. in Econ., Apr. 29, 1916. Pp. 30.

Advocates the use of reversionary annuities and term policies as the best method of meeting the needs of salaried persons.

BUCK, G. B. *Valuation of pension funds, with special reference to the work of the New York City pension commission*. Pro. C. A. S. S. A., May, 1916. Pp. 17.

The city has nine district funds, all of which are in an unsatisfactory condition.

BURNHAM, A. C. *A plan for the care of the insured under the proposed health insurance law*. Medical Rec., Apr. 22, 1916. Pp. 5.

Suggests methods of administering the medical benefits under the New York health insurance bill advocated by the Association for Labor Legislation.

COWLES, W. G. *Is it feasible for stock companies to meet the competition of the mutuals and state funds in workmen's compensation insurance?* Econ. Wld., Sept., 16, 1916. Pp. 4.

Meeting this competition by lowering the rates or reducing the commissions is unwise.

DOWNNEY, E. H. *A preliminary test of the coal mine rating schedule of the Associated Companies*. Pro. C. A. S. S. A., May, 1916. Pp. 8.

The test indicates the accurate working of the schedule.

ELLISON, W. B. *Fire insurance liability and explosion losses*. Econ. Wld., Aug. 19, 1916. Pp. 3.

The recent explosion in the harbor of New York City called attention to the explosion clause in the standard fire policy which stipulates for exemption from liability from explosion.

FISHER, A. *Outline of a method for determining basic pure premiums*. Pro. C. A. S. S. A., May, 1916. Pp. 13.

Proposes grouping employees in a comparatively small number of

danger classes, with pay-rolls divided to correspond; then the classification of the hazards is developed by using the dispersion theory.

FITCH, F. M. *Some distinctive features of steam boiler underwriting, and their bearing upon the formulation of premium rates.* Pro. C. A. S. S. A., May, 1916. Pp. 10.

FONDILLER, R. *Office practice in the valuation of compensation losses.* Pro. C. A. S. S. A., May, 1916. Pp. 20.

Describes methods in use in the New York State Insurance Fund; gives schedules used, with tables for computations.

FORSYTH, C. H. *Workmen's compensation in the United States.* Am. Underwriter, June, 1916. Pp. 11.

Summary of data regarding premiums and rating.

GOODWIN, E. S. *A study of workmen's compensation schedule "W" and the problems incident thereto.* Pro. C. A. S. S. A., May, 1916. Pp. 14.

Comment on the reporting schedule for compensation business.

GREENE, W. W. *Should the compensation premium reflect the experience of the individual risk?* Pro. C. A. S. S. A., May, 1916. Pp. 10.

The chief reason for the demand originates in the hope of the carrier for competitive advantage.

HAISEY, O. S. *Compulsory health insurance in Great Britain.* Am. Lab. Legis. Rev., June, 1916. Pp. 11.

Describes the organization of the insurance system and from personal investigation reports favorable results both as to relief and as to prevention.

HAYHURST, E. R. *List of recent pertinent literature on health insurance.* Ohio Pub. Health Journ., June, 1916. Pp. 2.

Short list of recent titles.

HITCHCOCK, H. B. *Insurance in Japan.* Econ. Wld., July 1, 1916. Pp. 2.

Digest of statistics of operations in 1913 and 1914 of companies writing life, marine, fire, accident, conscription, transportation, fidelity, boiler, and automobile insurance.

KALET, A. *Voluntary health insurance in New York City.* Am. Lab. Legis. Rev., June, 1916. Pp. 13.

Organization and operation of representative New York fraternal societies, trade unions, mutual assessment societies, private stock companies, and establishment funds.

KEENE, F. B. *The extent of the insurance business in Switzerland.* Econ. Wld., June 24, 1916. Pp. 3.

Reports for 1912 and 1913 summarized; covers life, accident, fire, plate glass, flood, hail, etc., together with a brief review of operations under the sickness insurance of 1911.

LANGSTAFF, M. P. *Sound and deceptive comparisons and ratios in judging life insurance companies.* Econ. Wld., Sept. 9, 1916. Pp. 2.

Analyzes the fallacies of the usual comparisons.

LINTON, M. A. *The endowment policy.* Am. Underwriter, June, 1916. Pp. 6.

The long endowment is the most satisfactory form of policy.

LINTON, A. *Insurance and annuities for college professors.* Am. Underwriter, July, 1916. Pp. 7.

The proposed Carnegie Foundation plan combining pension and term insurance, if taken together, the writer claims would be more expensive than a true endowment policy computed at the same mortality and interest.

MEAD, W. D. *Health and accident insurance, historically and practically considered.* Econ. Wld., Aug. 26, 1916. Pp. 2.

Advocates a form of policy which will provide either a principal sum and a weekly indemnity, or a weekly indemnity only.

MEEKER, R. *Relation of workmen's compensation to old-age, health and unemployment insurance.* Ohio Pub. Health Journ., Jul., 1916. Pp. 4.

The states of the union have in a measure cared for the social losses caused by industrial accidents; other features of social insurance should be adopted to meet costs due to other causes.

MOWBRAY and BLACK. *On the relation of accident frequency to business activity.* Pro. C. A. S. S. A., May, 1916. Pp. 10.

Accident frequency per unit of exposure tends to rise and fall as production rises and falls, though not necessarily in the same ratio.

PAGE, B. A. *The history and problems of accident insurance.* Econ. Wld., July 8, 1916. Pp. 2.

General discussion from the private company's point of view.

RIEGEL, R. *Fire insurance rates; problems of coöperation, classification, regulation.* Quart. Journ. Econ., Aug., 1916. Pp. 34.

One of the imminent developments of fire insurance is the question whether the companies will endeavor to continue past methods of measuring hazards or will coöperate in the support of a new system intended to furnish the public with the proof of equitableness which it demands.

RITTENHOUSE, E. E. *Social service of insurance.* Annalist, Sept. 18, 1916. Pp. 2.

Life insurance promotes thrift among policyholders, encourages life and health conservation, and the recent development of group insurance for employees increases good-will between employer and wage-earner.

ROCCA, G. *Insurance conditions in reference to the transport of cereals.* Intern. Rev. Agri. Econ., July, 1916. Pp. 11.

Marine and land transport insurance; conditions of contract, etc.

RUBINOW, I. M. *Relation between private and social insurance.* Pro. C. A. S. S. A., May, 1916. Pp. 12.

Social insurance largely creates its own business—it does not to any extent encroach upon vested interests. Coöperation between the two is possible for an indefinite time.

THORSEN, C. *Livesforsikrigsselskabernes Overskud*. Nat. ök. Tids., May-June, 1916. Pp. 17.

Discusses economic principles underlying the use of life insurance company surpluses.

WOODWARD, J. H. *The experience rating of workmen's compensation risks*. Pro. C. A. S. S. A., May, 1916. Pp. 14.

Careful statement of arguments on both sides with review of systems in use. Emphasizes the need for adequate statistics.

An analytical study of the Metropolitan Life Insurance Company's experience with agents. Econ. Wld., Aug. 26, 1916. Pp. 2.

Study of the characteristics of agents: their persistency in the business, previous occupations, nationality, age, married or single, etc., in relation to their success in securing business.

Brief bibliography on health insurance. Labor Gaz., Sept.-Oct., 1916. Pp. 3.

List of recent official and unofficial sources for the United States and foreign countries.

Brief for health insurance. Am. Labor Legis. Rev., June, 1916. Pp. 83.

Comprehensive statement of the case for health insurance, with citations of sources of information.

Comparative statistics of fire losses in the United States. Econ. Wld., Aug. 19, 1916. Pp. 2.

Convenient tables showing data for United States as a whole, for about 300 cities and comparative per capita losses of the leading countries of the world.

A new bill before the Chamber of Deputies for compulsory insurance against accidents in agricultural labour. Intern. Rev. Agri. Econ., June, 1916. Pp. 6.

Digest of bill introduced into Italian Parliament on Dec. 11, 1915, and read at sessions in March, 1916.

The New Zealand government life insurance department in 1915. Econ. Wld., Sept. 16, 1916. P. 1.

Review of the business of the government department for the years 1913, 1914, and 1915. Opinion is expressed that the government is not as successful as the private companies.

A penalty on patriotism. Annalist, June 26, 1916. Pp. 2.

Statements from presidents of large life insurance companies as to practice in charging extra premiums for military service.

Recent reports relating to workmen's compensation and industrial accidents. Mo. Rev. Bureau Labor Stat., July, 1916. Pp. 21.

Digest of reports of New York, Ohio, and Wisconsin commissions.

Select critical bibliography on health insurance. Am. Labor Legis. Rev., June, 1916. Pp. 7.

List of available sources for United States and foreign countries with contents notes.

Unemployment insurance under the British national insurance act. Mo. Rev. Bureau Labor Stat., July, 1916. Pp. 13.

Description of system and statistics of operations.

The war mortality experience of British life insurance companies. Econ. Wld., Sept. 9, 1916. Pp. 2.

Generally speaking, the war has directly increased British mortality claims by about 12 per cent.

Workmen's compensation legislation of 1916. Mo. Rev. U. S. Bureau Labor Stat., Sept., 1916. Pp. 3.

New laws and amendments enacted by United States Congress, Porto Rico, Kentucky, Louisiana, Maryland, Massachusetts, New Jersey, and New York.

Statistics

(Abstracts by A. A. Young)

AMOROSO, L. *Contributo al metodo delle minime differenze.* Giorn. d. Econ., July, 1916. Pp. 37.

ANDERSON, B. M. *Home vs. foreign trade.* Annalist, Feb. 7, 1916. Pp. 2.

Shows that Fisher's figures should not be used to indicate the relative industrial importance of domestic and foreign trade and maintains that Fisher overestimates the total volume of domestic exchanges.

BOAG, H. *Human capital and the cost of the war.* Journ. Royal Stat. Soc., Jan., 1916. Pp. 11.

Comparison of methods proposed by different writers (mostly English) for determining human capital values. Inadequate analysis.

BURHOP, W. H. *The use of accident statistics for accident prevention.* Econ. Wld., Apr. 29, 1916. Pp. 3.

CHAPIN, F. C. *The budgets of Smith College girls.* Quart. Pubs. Am. Stat. Assoc., June, 1916. Pp. 8.

A careful study of 421 expense accounts.

DARWIN, L. *On the statistical enquiries needed after the war in connection with eugenics.* Journ. Royal Stat. Soc., Mar., 1916. Pp. 17.

A paper of unusual interest, followed by a spirited discussion. Concerned with (1) the probability of the war's affecting an adverse selection of the population, (2) practical proposals for statistical inquiries into the extent of such effects, and (3) possible remedial measures.

DE V.-C. *Budgets de familles danoises.* Bull. Stat. Gén., Apr., 1916. Pp. 11.

Account of the results of a Danish investigation of 1914.

DUBLIN, L. I. and KOFF, E. W. *The improvement of statistics of cause of death through supplementary inquiries to physicians.* Quart. Pubs. Am. Stat. Assoc., June, 1916. Pp. 17.

An account of the fruitful results of special inquiries made by the statistical bureau of the Metropolitan Life Insurance Company.

DUBLIN, L. I. and LANGMAN, H. "On the handicapping of the first born," a criticism of Professor Pearson's 1914 memoir. Quart. Pubs. Am. Stat. Assoc., Dec., 1915. Pp. 9.

Seemingly conclusive proof that Pearson's findings with respect to the physical inferiority of the first born are traceable to his erroneous assumption that the distribution by order of birth of the brothers and sisters of a group of physically inferior persons is identical with the corresponding distribution in the community.

DUNLOP, J. C. *Note as to error of statement of ages of young children in a census.* Journ. Royal Stat. Soc., May, 1916. Pp. 9.

Detailed comparison of census and registration reports (Scotland) for 12,000 children under five show census errors in 7.5 per cent of cases, overstatement being over seven times as frequent as understatement.

DUNLOP, J. C. *A rapid method of calculating an average age.* Journ. Royal Stat. Soc., May, 1916. Pp. 4.

Method consists in (1) summing all ages having the same units digit and also all ages having the same tens digit, (2) multiplying by indicated numbers, (3) summing products, (4) dividing by total population.

DURAND, E. D. *The service of statistics in problems of war and peace.* Quart. Pubs. Am. Stat. Assoc., Dec., 1915. Pp. 10.

Tasks set for the statistician by the war.

EDGEWORTH, F. Y. *On the mathematical representation of statistical data.* Journ. Royal Stat. Soc., July, 1916. Pp. 47.

The first of a new series of papers on the analytical representation of frequency statistics. Includes a short review of the writer's earlier work in this field. Emphasizes the advantages of percentiles as compared with movements as constants to be used in the method of translation.

EDIN, K. A. *Studier i svensk fruktsamhetsstatistik.* Ek. Tids., No. 9, 1915. Pp. 54.

A study of the statistics of fecundity in Sweden and of different methods of using such statistics.

FALKNER, R. P. *Statistical tabulation and practice.* Quart. Pubs. Am. Stat. Assoc., May, 1916. Pp. 9.

Sound observations on elementary but important points in the construction of tables.

FISHER, I. *A multi-billion dollar nation; over and under counting.* Annalist, Feb. 21, Mar. 13, 1916. Pp. 3, 1.

Defends his estimates of the aggregate volume of domestic trade, which had been criticised as too large by Professor B. M. Anderson.

FORSYTH, C. H. *Notes upon Mr. King's short method of constructing abridged life tables.* Journ. Royal Stat. Soc., Jan., 1916. Pp. 4.

With appended note by Mr. George King.

GOLDENWEISER, E. A. *Classification and limitations of statistical graphics.* Quart. Pubs. Am. Stat. Assoc., May, 1916. Pp. 5.

Classification by purpose: reference, illustration, analysis, research.

HICKERNELL, W. F. *Building business barometers: Dr. Copeland's method.* Moody's Mag., Dec., 1915. Pp. 5.

Dr. Copeland's proposed method of eliminating "normal growth" is approved, but other methods are held to be as good.

HOBSON, A. *The use of the correspondence method in original research.* Quart. Pubs. Am. Stat. Assoc., June, 1916. Pp. 9.

Practical suggestions, based on experience of department of agricultural economics of the University of Wisconsin.

HUBER, M. *Les étrangers à Paris d'après le recensement de 1911.* Bull. Stat. Gén., July, 1915. Pp. 15.

KING, W. I. *New method for computing the moving average.* Quart. Pubs. Am. Stat. Assoc., Dec., 1915. Pp. 3.

Cumulative addition and corresponding subtractions.

LEHFELDT, R. A. *The normal law of progress.* Journ. Royal Stat. Soc., May, 1916. Pp. 4.

Makes the "progressing" magnitude a "normal error function" of time. Has little or no significance except as suggesting a definite limit to most instances of "progress."

LESLIE, G. D. *Vital statistics work in California.* Quart. Pubs. Am. Stat. Assoc., Dec., 1915. Pp. 6.

MACDONALD, A. *Comparative militarism.* Quart. Pubs. Am. Stat. Assoc., Dec., 1915. Pp. 3.

Number of soldiers and sailors relative to total population in times of peace, for various countries.

MITCHELL, W. C. *A critique of index numbers of the prices of stock.* Journ. Pol. Econ., July, 1916. Pp. 70.

The first adequate study of the special problems attending the construction of such index numbers. The method used is empirical rather than primarily analytical, comparisons being made of the results of many different methods of construction. The general conclusion favors the use of geometric mean of short-time relatives.

PARMELEE, J. H. *Statistical standardization in Washington.* Quart. Pubs. Am. Stat. Assoc., June, 1916. Pp. 4.

Despite the appointment, in 1908, of an Interdepartmental Statistical Committee, little has been accomplished.

PERSONS, W. M. *Construction of a business barometer based upon annual data.* Am. Econ. Rev., Dec., 1916. Pp. 31.

POWERS, L. G. *Comparative statistics of British cities.* Nat. Munic. Rev., Apr., 1916. Pp. 14.

A review of a recent publication of the London County Council, with some comparisons with financial statistics of American cities.

RUTTER, F. R. *Statistics of imports and exports*. Quart. Pubs. Am. Stat. Assoc., Mar., 1916. Pp. 19.

Careful and informing discussion of the different principles on which these statistics are compiled in different countries, their legal bases in the United States, their accuracy, timeliness, classification, presentation, and their comparability with the statistics of other countries.

TACHAUER, D. *Statistische Untersuchungen über die neigungen zu mischehen*. Zeitschr. f. d. ges. Staatswis., 3d Heft, 1915. Pp. 25.

Study of the statistics of marriages of persons of different religious faiths, employing a (supposedly) new *Neigungskoeffizient*, which happens to be identical with a coefficient of association suggested some years ago by Yule.

WATKINS, G. P. *Theory of statistical tabulation*. Quart. Pubs. Am. Stat. Assoc., Dec., 1915.

General analysis and helpful concrete suggestions.

WELTON, T. A. *Occupations of the people, England and Wales, 1911. Memorandum as to merchants and clerks*. Journ. Royal Stat. Soc., Jan., 1916. Pp. 6.

WILLIAMS, T. T. *Note on two forms of index numbers*. Bengal Econ. Journ., Apr., 1916. Pp. 5.

An unweighted average of relative prices is usually larger than a weighted average during a period of expanding trade, while the reverse is usually true during a period of contracting trade.

WORMS, R. *La statistique du Conseil des Prises*. Bull. Stat. Gen., Oct., 1915. Pp. 4.

A review of the first year's work of the French prize court.

WEIGHT, P. G. *The new index numbers of the United States Bureau of Labor Statistics*. Quart. Journ. Econ., Aug., 1916. Pp. 9.

Including an appreciative review of Mitchell's *The Making and Using of Index Numbers*.

YOUNG, A. A. *Nearing's "Income"; King's "Wealth and Income."* Quart. Journ. Econ., May, 1916. Pp. 10.

An unfavorable review of Nearing's book and a favorable review of King's.

Investigations into variations in cost-of-living index-numbers in 150 towns in the commonwealth. Labour Bull. (Australia), Mar., 1916.

Joint committee on standards for graphic presentation. Quart. Pubs. Am. Stat. Assoc., Dec., 1915. Pp. 9.

A preliminary report. Concerned with elementary aspects of the construction of diagrams intended for popular use.

A new method of computing accident rates. Mo. Rev. Bureau of Labor Stat., July, 1916. Pp. 12.

Accident frequency rates are ratios of accidents to "full-time workers" (number of man-hours per year divided by 3000). Accident

severity rates are obtained by weighting accidents roughly on a time-loss basis.

Cours des denrées à Paris, gros et détail. Bull. Stat. Gén., Apr., 1916. Pp. 9.

Enquête sur les prix de vente au détail de certaines denrées dans les villes Françaises de plus de 10,000 habitants. Bull. Stat. Gén., Apr., 1916. Pp. 20.

Indicating an advance of 34 per cent since the beginning of the war.

Prix de gros, prix maxima, prix de détail, cours des denrées à Paris. Bull. Stat. Gén., Jan., 1916. Pp. 36.

The information regularly appearing in this periodical on prices in the different countries of Europe during the war is particularly complete.

NOTES

The Twenty-ninth Annual Meeting of the American Economic Association will be held at Columbus, Ohio, December 27-30, 1916. The American Sociological Society, the American Statistical Association, and the American Association for Labor Legislation will meet at the same time and place.

On Wednesday evening, December 27, there will be a joint meeting of the four associations at which the annual Presidents' addresses will be given. The subject for discussion at the Thursday morning session is "The problem of land ownership." Professor Richard T. Ely will read the leading paper. On Thursday afternoon there will be papers by Professor H. C. Taylor on "Two dimensions of economic productivity" and by Professor George von Tunge on "The results of some rural surveys in Iowa." On Thursday evening at a joint meeting with the American Sociological Society papers will be read by Professor Paul L. Vogt and Professor C. W. Thompson, the latter's topic being "Our rural credits law." On Friday morning there will be a joint meeting with the American Statistical Association. Professor A. A. Young will discuss the subject: "Do the statistics regarding the concentration of wealth in the United States mean what they are commonly assumed to mean?" and there will be another paper by a representative of the American Statistical Association. At the Friday afternoon session there will be papers by Professor O. M. W. Sprague on "Is a general rise of prices an inevitable consequence of a War?" and by Mr. George E. Roberts on "The economic and financial situation of the United States at the close of the European war." At a banquet, scheduled for Friday evening, there will be a discussion of special problems likely to arise in the United States at the close of the European war. Messrs. R. W. Babson, W. Jett Lauck, T. S. Adams, John R. Wildman, and Mrs. Haviland H. Lund will participate in this discussion. At the final session, on Saturday morning, there will be papers on "The Minimum wage" by Professor J. E. LeRossignol and "The eight hour day" by Professor M. B. Hammond.

The headquarters of the Association will be at the Hotel Deshler, Broad and High Streets, where a Bureau of Information and Registration will be maintained. Most of the sessions will also be held in the Hotel. Programs and other information can be secured from the Secretary of the American Economic Association, Professor A. A. Young, Cornell University, Ithaca, N. Y. The local arrangements at Columbus are in charge of a committee of which Professor Carl E.

Parry, of Ohio State University, is chairman. Information respecting the other societies which are to meet in Columbus may be obtained from their Secretaries who are as follows: The American Sociological Society, Scott E. Bedford, the University of Chicago, Chicago, Ill.; the American Statistical Association, C. W. Doten, Massachusetts Institute of Technology, Cambridge, Mass.; the American Association for Labor Legislation, John B. Andrews, 131 East 23d Street, New York City.

The March, 1917, number of the REVIEW will contain a second article by Professor Warren M. Persons, on the "Construction of a Business Barometer Based upon Quarterly and Monthly Data," and an article by Professor H. J. Davenport on "Theoretical Issues in the Single Tax."

Since the publication of the Handbook in September, 1916, the following names have been added to the membership of the American Economic Association:

Allison, Richard A., Bellamy, Ala.
Atterbury, Boudinot, Central Y. M. C. A., Baltimore, Md.
Barry, Charles D., Montclair, N. J.
Bennett, A. S., 120 Boylston St., Boston, Mass.
Bernheim, George B., 76 Worth St., New York, N. Y.
Carey, M. L., Room 2502, 165 Broadway, New York, N. Y.
Chase, Charles H., Box 263, University, Miss.
Dorr, John V. N., 17 Battery Place, New York, N. Y.
Dowrie, George W., 520 Walnut St., Ann Arbor, Mich.
Eaton, Frank W., 215 Fourth Ave., New York, N. Y.
Eisig, Arthur M., 134 Grand St., New York, N. Y.
Evans, Samuel M., Essex Falls, N. J.
Fishel, Henry W., 126 West 22d St., New York, N. Y.
Galloupe, Frederic R., 15 State St., Boston, Mass.
Greve, William H., 162 Remsen St., Brooklyn, N. Y.
Goldstin, Louis, 316 Market St., Chester, Pa.
Gould, William H., 25 Church St., New York, N. Y.
Hennig, Walter, Fourth National Bank Bldg., Wichita, Kansas.
Hodges, George W., 14 Wall St., New York, N. Y.
Hoeschler, Frank J., 502 Main St., La Crosse, Wis.
Josephthal, Louis M., 61 Broadway, New York, N. Y.
Kidder, Jerome F., Hampton Institute, Hampton, Va.
Kirkland, E. T., Irwin Neisler & Co., Decatur, Ill.
Lathrop, Henry R., 116 Beekman St., New York, N. Y.
Lau, L. Naam, 201 Bryant Ave., Ithaca, N. Y.
Lee, Thomas Z., 49 Westminster St., Providence, R. I.
McCallum, Malcolm, 433 Kane Place, Milwaukee, Wis.
Mitchell, W. B., Room 12, Keystone Block, Chattanooga, Tenn.

Nathan, Alfred, 101 Park Ave., New York, N. Y.
Ollesheimer, Henry, 5 East 58th St., New York, N. Y.
Palmer, Howard, Hotel Michigan, New London, Conn.
Pioda, L. E. W., 1010 French Bank Bldg., San Francisco, Calif.
Rand, James H., 707 Unity Bldg., Boston, Mass.
Reiling, Joseph L., 260 Fourth Ave., New York, N. Y.
Robinson, Harold Russell, 84 Milford Ave., Newark, N. J.
Rushmore, Stephen, 522 Commonwealth Ave., Boston, Mass.
Seko, Konosuke, 25 Madison Ave., New York, N. Y.
Sheets, Elmer A., Jr., 480 N. Broadway, Yonkers, N. Y.
Shipman, W. H. N., 34-36 W. Lake St., Chicago, Ill.
Sigilman, Samuel, 1040 Old South Bldg., Boston, Mass.
Sisson, Francis H., 61 Broadway, New York, N. Y.
Stabler, Walter, 1 Madison Ave., New York, N. Y.
Stehman, J. Warren, University of Minnesota, Minneapolis, Minn.
Stone, I. Frank, 100 William St., New York, N. Y.
Straus, Jesse I., Herald Square, New York, N. Y.
Waterman, Walter B., 41 Waumbuck St., Roxbury, Mass.
Wiener, Ernest H., 25 Broad St., New York, N. Y.
Wise, Leo H., 23 East 63d St., New York, N. Y.

A meeting of the teachers of economics, sociology, and commerce, in the state of Iowa was held at the State University in Iowa City on October 6 and 7, 1916. A permanent organization was effected and the following officers chosen: President, Norris A. Brisco, State University of Iowa; vice president, Clarence Case, Penn College; secretary-treasurer, A. S. Keister, Cornell College; executive committee, Charles T. Hickok, Coe College, G. P. Wyckoff, Grinnell College, and Reuben McKittrick, State Teachers' College. Among the subjects discussed at this meeting were: "The place of commercial subjects in the college curriculum" and "Methods of teaching elementary economics."

The Western Economic Society held a conference November 10-11 in Chicago devoted to a discussion of problems of economic instruction. Among the speakers were: Professor W. H. Hamilton of Amherst and F. S. Deibler of Northwestern University who considered "Undergraduate courses in economics." President Frank L. McVey spoke on "Graduate work as a preparation for teaching"; Professor J. A. Field, on "The place of economic theory in graduate work"; Professor J. A. Hayford, on "The relation of engineering to economics"; Professor E. A. Gilmore, on "The relation of law and economics"; and Professor L. C. Marshall, on "Commerce work and economics."

A Congress on Human Engineering, called by the College of En-

gineering of the Ohio State University, was held in Columbus on October 26-28, 1916. The subjects dealt with were welfare work in factories, the handling of men, and scientific management. The majority of speakers were men engaged in managerial positions in factory work, industrial secretaries of Young Men's Christian Associations, and labor leaders. Dr. Horace B. Drury, of the department of economics of Ohio State University, read a paper on "Labor and scientific management."

The Graduate School of Agriculture held its seventh biennial session in Amherst, Massachusetts, in July, 1916. The subject of marketing was discussed by Dr. L. D. H. Weld, of the Sheffield Scientific School, and Mr. C. J. Brand, Chief of the Office of Markets and Rural Organization, United States Department of Agriculture. Professor H. C. Taylor gave a course of lectures on land problems; and Professor J. A. Bexell, of the Oregon College of Agriculture, lectured on farm accounting and farm business methods.

At the annual meeting of the American Association for Labor Legislation, to be held December 27-29, at Columbus, Ohio, and December 30 at Cincinnati, one of the principal subjects for discussion will be "health insurance."

A conference on Social Insurance, called by the International Association of Industrial Accident Boards and Commissions, will be held at Washington, December 5-9, 1916. The subjects to be discussed include workmen's compensation, sickness benefits and insurance, accident statistics, invalidity and old age insurance, pensions and retirement allowances, benefits and allowances to women, and unemployment insurance. Copies of the program may be had upon application to the United States Department of Labor.

The State Industrial Commission of New York will hold an Industrial Safety Congress at Syracuse, December 11-14, 1916. Some of the topics to be considered are: "Duty of workers in coöperating with safety organizations"; "Duty of employers in prevention of accidents"; and "Attitude of New York State's organized industry toward the safety movement."

The Fabian Research Department, of England, will hold a series of conferences this winter on "The restoration of trade union conditions after the war." The subjects proposed for discussion are as follows: "The difficulties of a simple reversion of the *status quo ante*"; "The introduction of piece-work and bonus systems"; "Demar-

cation and the relations between skilled and unskilled men"; "Introduction of women into male occupations"; "Defects of trade union organization"; "Proposed organization of employers in state-aided associations"; and "Proposals for joint control."

The state of California has created a Social Insurance Commission for the purpose of investigating the various systems of social insurance now in existence or under contemplation either in the United States or in foreign countries (525 Market St., San Francisco).

The New York University School of Commerce, Accounts, and Finance has established a graduate division of business administration under the directorship of Professor Willard C. Fisher.

Major General George W. Goethals, governor of the Panama Canal Zone, Edgar E. Clark, of the Interstate Commerce Commission, and George Rublee, of the Federal Trade Commission, have been appointed as a special commission to observe the operation and effects of the eight-hour day as provided for under the Adamson law.

The Joint Committee on Interstate Commerce, which will make an investigation into the subject of government regulation and government ownership of railroads and other transportation and transmission facilities, is arranging for a series of hearings at Washington at which the following special topics will be considered:

1. The subject of government control and regulation of interstate and foreign transportation.
2. The efficiency of the existing system in protecting the rights of shippers and carriers and in promoting the public interest.
3. The incorporation or control of the incorporation of carriers.
4. The subject of government ownership of all public utilities, such as telegraph, wireless, cable, telephone, express companies, and railroads engaged in interstate and foreign commerce, and report as to the wisdom or feasibility of government ownership of such utilities.
5. The comparative worth and efficiency of government regulation and control as compared with government ownership and operation.
6. Proposed changes in organization of the Interstate Commerce Commission.
7. Proposed changes in the Act to Regulate Commerce.

The Community Service Bureau (713 Masonic Temple, Chicago) has issued *Essentials of Community Efficiency* and in the course of a few months it is expected that a companion volume, *Essentials of*

Community Organization, will be ready. This Bureau comprises seven departments, covering social economics; home life and child welfare; business organization; salesmanship and advertising; community music; pageants and festivals; and lectures and entertainments. Dr. R. P. Shepherd is its president.

The Social Insurance Committee of the American Medical Association, with offices at 131 East 23d St., New York City, has begun a series of publications on social insurance, and four pamphlets in the series have already appeared: (1) *Workmen's Compensation Laws* (pp. 71), being a report of the Judicial Council of the American Medical Association made on June 21, 1915, by Dr. Alexander Lambert. (2) *Social Insurance* (pp. 104), report of the special committee of the American Medical Association presented at the annual meeting in Detroit, June 10, 1916. (3) *Health Insurance in Relation to Public Dispensary* (pp. 11), by Dr. I. M. Rubinow, a paper read at the annual meeting of the Association of Out-Patient Clinics of the City of New York, April 19, 1916. (4) *Health Insurance in Relation to Public Health* at the sixty-seventh annual session of the American Medical Association, Detroit, June, 1916. The next pamphlet is in the press and is devoted to a comprehensive study of available statistics of the medical profession. Investigations of out-patient clinics of New York City, of medical incomes and other subjects bearing upon health insurance and upon its relation to the medical profession are contemplated for subjects of further issues. Interested students may obtain these pamphlets free of charge and have their names placed on the mailing list by writing to Dr. I. M. Rubinow at the above address.

The following additional dissertations are being undertaken by candidates for the doctor's degree at Yale University: "The inspection and grading of grain," by H. Bruce Price; and "The raw silk and silk goods trade," by Ralph Eastman Badger.

Mr. C. B. Fillebrown, 77 Summer St., Boston, renews his offer to send gratuitously to professors of political economy pamphlets on the single tax problem for class use.

MATERIAL ON SOUTH AMERICAN ECONOMIC AFFAIRS RECENTLY ACQUIRED BY THE HARVARD COLLEGE LIBRARY. During the past few years, in response to the increased interest in South American affairs, the Harvard College Library has been making an effort to strengthen its collections in this field, with special reference to reports, documents, and serial publications of an economic nature. Attention has

been paid especially to Brazil, Uruguay, Argentina, and Chile, and largely as a result of the cordial coöperation of the governments of those countries a collection of about 15,000 volumes has been brought together. Among these are many sets of official or semi-official publications, comprising approximately 1,000 volumes, which have been secured because of their utility for students of the administrative and economic problems of the more advanced South American countries.

On Argentina the most valuable set obtained is the complete series of the Bulletin of the Buenos Aires Stock Exchange, from 1877 to date, one of the very few unbroken sets of this important publication in existence. Among other Argentine sets, the following are the more important: Memorials of the Ministry of Finance (1875 to date), Monthly Bulletins of the same (1890 to date), Statistics on Commerce and Navigation (1883-1893), Annual Reports of the Statistical Office (1893 to date), and the Statistical Annuals of Buenos Aires (1895 to date), of Tucuman (1903 to date), and of Rosario (1909 to date).

On Brazilian affairs the extensive series of the Memorials of the Ministry of Agriculture, Commerce and Public Works (1861 to date) has been secured. The State of Sao Paulo, perhaps the most important region of Brazil, from an economic point of view, is represented by its Statistical Annual (1908 to date), the Reports of the State Treasurer (1909 to date) and the Bulletin of the Bureau of Commerce and Industries (1910 to date). The Chambers of Commerce of the chief cities of the country issue monthly or weekly bulletins, and of these the sets from Para, Rio de Janeiro, Santos, and Bahia have been obtained.

For Uruguay the more useful collections are the Statistical Annuals of the City of Montevideo (1903 to date), the Statistical Annual of Uruguay (1894 to date), one of the best publications of its kind in South America, and the Reports of the Ministry of Industries (1902 to date).

The most extensive group of official publications of this type secured for any one of these countries is that on Chile. The national government is represented by the Annual Synopsis of Statistics and Geography (1898 to date), the Memorials of the Ministry of the Interior (1879 to date), the same of the Ministry of Finance (1873 to date), and the same for the Ministry of Industries 1888 to date). Of the semi-official publications the more important are the

Bulletin of the Society for Industrial Affairs and the Reports of the Santiago Chamber of Commerce. J. K.

The Cornell University Library has acquired a collection of about 1,500 books on insurance, brought together by Mr. John W. Guiteau, late statistician of the Mutual Life Insurance Company of New York. The collection is particularly strong in old and scarce reports of state insurance departments and in files of insurance periodicals.

Dr. William Smart's private library on economics and related subjects has been placed in the Political Economy Class Library of Glasgow University.

The federal Bureau of Education has issued as Bulletin, 1916, No. 25, *Commercial Education*, being a report on the commercial education subsection of the Second Pan American Scientific Congress, held at the beginning of the year. The bulletin is prepared by Mr. G. L. Swiggett.

The Division of Bibliography of the Library of Congress has prepared a typewritten list of references on the taxation of intangible property with special reference to mortgages. Although not published, it is understood that this list will be temporarily placed in the hands of those especially interested who may wish to draw off titles or to copy the list.

Addresses delivered by the faculty of the University of Geneva on the occasion of the opening of the university in October, 1915, have been published in a small volume entitled *Les Sciences Economiques et Sociales à l'Université de Genève* (1916, pp. 216). It includes an address by Professor Rappard on "L'économisme historique d'Adam Smith."

The War Study Society, which has its central office in Copenhagen (Sv. Trier, Secretary, Osterbrogade 56 C¹), in its Bulletin No. 2, August, 1916, (pp. 34), has a statistical study of human losses in the war. The subject is analyzed as far as possible under the following headings: (1) Direct losses of men suffered by the armies; (2) The great mortality among prisoners of war; (3) Loss of human life among the civil population generally; (4) Mortality among refugees; (5) Mortality among the civil population generally; (6) The great reduction of the number of childbirths.

In the *Journal of the National Institute of Social Sciences* (Boston Book Co., \$1.50), Vol. 2, July, 1916, there are articles on "Finance and industry after the war," by George E. Roberts, "Municipal terminal markets," by C. C. Miller, and "The beet sugar industry and its relation to national economics," by T. G. Palmer.

Professor James E. Boyle, field agent in marketing for North Dakota, is furnishing a series of articles on "Farmers' cooperative elevators" for the *Coöperative Manager and Farmer* of Minneapolis. Beginning with the October, 1916, issue, the articles will run for about six months. Problems discussed are membership, penalty clause, dividends, bonding, government bookkeeping system, auditing, side lines, pay of manager, the reserve, and limits of share holding.

The National Electric Light Association is issuing its first official compilation of electric rates, to be known as *1916 N. E. L. A. Rate Book*. This will be followed by quarterly supplements under the direction of the rate research committee.

An article by Professor E. R. A. Seligman on "A University School of Business" has been reprinted from the *Columbia University Quarterly* for June, 1916.

The Extension Service of the Massachusetts Agricultural College is about to issue a bulletin entitled *The Cost of Distributing Milk in Six Massachusetts Towns*.

The First National Bank of Boston has begun the publication of a *Foreign Trade Letter*, which is to be issued from time to time.

The National Shawmut Bank, Boston, Mass., has printed the *Text of the Paris Economic Pact* (pp. 8).

The Administration of Business Enterprises, by Professor E. D. Jones, is soon to be published by Longmans, Green & Co.

D. Appleton & Co. announce the early publication of *Municipal Finance*, by Ralph E. George; and a new volume in the Municipal League Series, *The System of Financial Administration of Great Britain*, by William F. Willoughby, Westal W. Willoughby, and S. M. Lindsay, with an introduction by President Lowell.

Prentice-Hall, Inc., No. 1 University Place, New York City, publishes *Problems in Private Finance* to accompany Gerstenberg's *Materials of Corporation Finance*.

The Macmillan Company will publish at an early date *Profit and Wages: A Study in the Distribution of Income*, by Professor G. A. Kleene of Trinity College.

Sir Isaac Pitman and Sons announce the publication of *Labour, Finance and the War*, the result of an investigation made by committees organized by the Economic Section of the British Association, and edited by Professor Kirkaldy of Birmingham University.

T. Fisher Unwin announces the publication of *The State as Manufacturer and Trader: A Criticism Based on Economic, Industrial and Fiscal Results from Government Tobacco Monopolies*, by A. W. Madsen.

The Cambridge University Press will soon publish *The Progress of Capitalism in England*, by Archdeacon Cunningham.

Since the preparation of the lists of new books the following have been received:

Macmillan: *Introduction to Economics*, by Frank O'Hara (pp. 259, \$1).

Arthur H. Clark Company: *The Mississippi Valley in British Politics. Study of the Trade, Land Speculation, and Experiments in Imperialism Culminating in the American Revolution*, by Clarence Walworth Alvord (two volumes, with maps).

University of Chicago Press: *Agricultural Economics. A Selection of Materials in which Economic Principles are Applied to the Practice of Agriculture*, by Edwin G. Nourse (pp. 896, \$2.75).

Putnam's: *The Development of Transportation in Modern England*, by William T. Jackman (two volumes, \$7.25).

Appleton: *Caribbean Interests of the United States*, by Chester Lloyd Jones (pp. 379, \$2.50); *The Panama Canal and Commerce*, by Emory R. Johnson (pp. 295, \$2); *Cost Accounting and Burden Application*, by Clinton H. Scovell (pp. 328, \$2).

Harvard University Press: *An Approach to Business Problems*, by A. W. Shaw (pp. 332, \$2).

Houghton Mifflin: *Corporation Finance. Part II. Distributing Securities, Reorganization*, by Hastings Lyon (pp. 316, \$2).

University of Texas: *A Financial History of Texas*, by Edmund Thornton Miller (pp. 444, \$1).

University of Washington: *The State Tax System of Washington*, by Vanderveer Custis (pp. 142).

Ginn: *Readings in Social Problems*, edited by A. B. Wolfe (pp. 804, \$2.80).

Longmans: *The Administration of Industrial Enterprises with Special Reference to Factory Practice*, by Edward D. Jones (pp. 442); *The Chartist Movement in Its Social and Economic Aspects*, Part I, by Frank F. Rosenblatt (pp. 248, \$2); *The Decline of the Chartist Movement*, by Preston William Slosson; *Chartism and the Churches. A Study in Democracy*, by Harold Underwood Faulkner (pp. 152, \$1.25).

A valuable aid to current documentary periodical literature is *Municipal Reference Library Notes*, published by the Municipal Reference Library, a branch of the New York Public Library, under the direction of Dr. C. C. Williamson.

The Engineering Magazine has changed its name to *Industrial Management* and announces that this periodical will create a new department devoted to the problems of employment managers.

A new quarterly journal entitled *Better Business*, which devotes its space to "coöperation in agriculture and industry" now comes regularly from the press of Maunsell & Co., Ltd., 50 Lower Baggot St., Dublin. It is edited by the Coöperative Reference Library, founded by Sir Horace Plunkett and in charge of Sir Lionel Smith-Gordon, both well-known students of rural economic problems in the United States. Vol. I, No. 4 (July, 1916), has a number of articles of interest to Americans.

The Chinese Social and Political Science Association, Peking, China, has begun the publication of an economic quarterly, *The Chinese Social and Political Science Review*. The subscription is \$4 a year, payments being made through the care of Mr. Theodore Wong, 2023 Kalorama Road, Washington, D. C. The first number of the Review appeared in April, 1916, and includes articles on "The administration of Chinese government railways," "The nature and function of a budget," and "The reform of land tax in China."

Appointments and Resignations

Mr. Floyd E. Armstrong, of the University of Michigan, has been appointed assistant professor of economics at the Massachusetts Institute of Technology.

Mr. Walter E. Baker has been appointed instructor in accounting and statistics at Iowa State College.

Mr. E. W. Bemis is representing the city of Chicago in an attempt to appraise the property of the Peoples Gas and Coke Company, which supplies gas to all of Chicago, and to adjust the rates to be charged.

Professor T. H. Boggs, of Dartmouth College, has accepted a position as professor of economics in the University of British Columbia at Vancouver.

Dr. James E. Boyle has resigned his position as head of the economics department at the State University of North Dakota in order to become field agent in marketing at the State Experiment Station, Fargo, North Dakota.

Associate Professor Ralph Starr Butler, of the University of Wisconsin, has become professor of business administration, at New York University School of Commerce, Accounts, and Finance, his work to be primarily in marketing methods and marketing costs.

Professor Warren B. Catlin, of Bowdoin College, will be on sabbatical leave the second semester of the current year, dividing his time between the completion of a dissertation on the labor movement and travel in the South and West.

Mr. Vanderveer Custis has been promoted to the rank of associate professor of economics at the University of Washington.

Mr. C. A. Dice has been appointed head of the department of social and political science at Rockford College.

Dr. A. P. Drucker has been made the head of the new department of business administration at the University of Idaho.

Mr. G. J. Eberle, formerly public utility expert with the Wisconsin Railway Commission, has been appointed an instructor in economics at the University of Wisconsin.

Dr. Thomas D. Eliot has been appointed assistant professor in economics and sociology at the Washington State College.

Professor Fred R. Fairchild has been elected secretary of the National Tax Association.

Mr. Nicholas T. Ficker is lecturer on factory engineering and cost reduction at the New York University School of Commerce, Accounts, and Finance.

Professor David Friday, of the University of Michigan, is now professor of finance at the New York University School of Commerce, Accounts, and Finance.

Mr. Raymond Fuller, organizer of the secretarial department of Russell Sage College, Troy, has joined the executive staff of the American Association for Labor Legislation.

Mr. E. S. Furniss has been appointed instructor in political economy at Yale University.

Mr. Clare E. Griffin has been appointed an instructor in the department of economics at Dartmouth College.

Mr. Harry D. Harper, of the University of Minnesota, has been appointed an assistant professor in the department of economics of the University of Kansas.

Mr. Ralph B. Harris, instructor in commerce at Washington State College, has resigned to accept a position in the Chester Military School.

Dr. Fred E. Haynes has been promoted from instructor to assistant professor of sociology in the State University of Iowa.

Mr. Warren F. Hickernell, who for some years was connected with the Brookmire Statistical Service, has been appointed lecturer on panics and depressions, at the New York University School of Commerce, Accounts, and Finance.

Mr. H. E. Hoagland has resigned his position as chief of the division of industrial directory in the Bureau of Statistics and Information of the New York State Industrial Commission to accept a position on the teaching staff at the University of Illinois.

Mr. Albert C. Hodge has been appointed instructor in economics at the University of Minnesota.

Professor Willard E. Hotchkiss has resumed his duties as professor of economics and dean of the School of Commerce of Northwestern University.

Mr. Olin Ingraham, formerly assistant in economics at the University of Wisconsin, has been made instructor in economics at the University of Colorado.

Dr. John Ise, of the Iowa State College, has been appointed assistant professor in economics at the University of Kansas.

Professor LeRoy F. Jackson, of New York University, has been appointed acting head of the department of economic science and history at Washington State College.

Professor Jeremiah W. Jenks, who has been in China during the last six months, has resumed his duties at the New York University School of Commerce and Finance.

Mr. Russell D. Kilborn has been appointed an instructor in the department of economics at Dartmouth College.

Mr. Eric Louis Kohler has been appointed instructor in accounting at Northwestern University.

Mr. Hugo Kuechenmeister has been transferred from the Extension Division of the University of Wisconsin to an instructorship in business administration in the College of Letters and Science of the same institution.

Dr. Louis Levine has been appointed instructor in economics at the University of Montana.

Dr. Walter F. McCaleb is to lecture on finance at the New York University School of Commerce, Accounts, and Finance, during the current year.

Mr. V. Everit Macy has been elected president of the National Civic Association.

Mr. T. Esquivel Obregon, formerly Secretary of the Treasury of Mexico, has been appointed lecturer on commercial law and business practice in South America at the New York University School of Commerce, Accounts, and Finance.

Mr. William A. Paton has been appointed instructor at the University of Minnesota.

Professor Warren M. Persons, of Colorado College, is lecturing at Harvard University this year as an exchange professor.

Mr. Howard Preston has resigned as instructor in economics at the State University of Iowa and is filling a like position at the University of Texas.

Assistant Professor George E. Futnam has been promoted to an associate professorship at the University of Kansas.

Mr. John O. Rankin, formerly at the University of Missouri, has been appointed associate professor in charge of agricultural economics, at the Iowa State College.

Dr. Walter Dill Scott, professor of psychology at Northwestern University, is on leave of absence for the current year acting as

director of the Bureau of Salesmanship Research in the Carnegie Institute of Technology, Pittsburgh, Pa.

Mr. H. D. Simpson, of the University of Wisconsin, has been appointed professor of economics at Ohio University, Athens, Ohio.

Dr. David Paul Smelser has been appointed examiner for the Federal Trade Commission.

Mr. George C. Smith has resigned as lecturer in economics at the New York University School of Commerce, Accounts, and Finance and is in charge of the industrial work of the Baltimore & Ohio Railroad Company.

Professor Harry Edwin Smith, of the University of Washington, has been made professor of economics and commerce at the University of Montana.

Mr. A. F. Spaulding has been made assistant professor of business at the University of Montana.

Mr. J. Warren Stehman, formerly of Rochester University, has been appointed instructor in economics at the University of Minnesota.

Dr. W. H. S. Stevens has resigned his position as professor of business management at Tulane University to act as special expert for the Federal Trade Commission.

Professor A. W. Taylor, of the Washington State College of Agriculture has been made assistant professor of economics at New York University and director of the Wall Street Branch of the School of Commerce, Accounts, and Finance.

Mr. Thomas R. Taylor, has been appointed instructor in resources and trade at the Northwestern University School of Commerce.

Dr. John K. Towles, formerly professor of commerce in the University of Cincinnati, has been appointed professor of business organization and management in the College of Commerce and Business Administration of Tulane University.

Assistant Professor H. R. Trumbower, of the University of Wisconsin, is on leave of absence for the current academic year, having been made a member of the Wisconsin Railway Commission.

Mr. Homer B. Vanderblue has been promoted to an associate professorship in the School of Commerce of Northwestern University.

Mr. George W. Van Tuyle has been appointed instructor in busi-

ness mathematics at the New York University School of Commerce, Accounts, and Finance.

Dr. R. B. Westerfield has been promoted to an assistant professorship in political economy at Yale University.

Dr. Nathaniel R. Whitney, of Johns Hopkins University, has been appointed assistant professor of economics in the State University of Iowa and will have charge of the work in banking, finance, and statistics.

Dr. Leo Wolman has been appointed instructor in political economy at the University of Michigan.

Dr. Robert H. Woodbury, formerly instructor in economics at Cornell University, has been appointed assistant professor of economics at the University of Kansas.

Dr. Joseph Noble Stockett, Jr., who had accepted a position as instructor in economics at Dartmouth College, died suddenly in Hanover on September 28.

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Books for review should be sent to the Managing Editor.

Orders for publications, subscriptions, and applications for membership in the American Economic Association should be sent to Professor A. A. Young, Secretary of the American Economic Association, Ithaca, N. Y. Membership dues are five dollars a year; life membership one hundred dollars.

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